EUROPE'S BUSINESS NEWSPAPER

FINANCIAL TIMES

FT No. 31,583

Wednesday October 16 1991

D 8523A

Citicorp suspends dividend after $885m loss

By Karen Zagor and Nikki Tait in New York

CITICORP, the biggest *commercial bank in the US*, yesterday surprised Wall Street by revealing a $885m loss in the third quarter of 1991.

The bank also announced it was halting dividend payments for the first time in its 179-year history; before this, it had paid a continuous stream of dividends since 1813.

Citicorp had already sliced quarterly payments from 44.5 cents to 25 cents at the start of 1991, and some analysts had warned that future pay-outs might be in danger. But as *recently as April, Mr John* Reed, Citicorp chairman, said he did not expect a further dividend reduction. Citicorp shares, which were suspended ahead of the news, resumed trading to close down $$\frac{3}{4}$ at $$12\frac{3}{4}$.

The third-quarter loss followed a further $930m charge to cover asset writedowns, restructuring charges, and additions to reserves.

Citicorp was not alone in reporting bleak third quarter results yesterday. Security *Pacific, the Los Angeles-based* bank soon to be acquired by BankAmerica, also suspended its dividend after turning in a net loss of $4.10 a share against net earnings of $1.05 a year ago. The bank said its merger with BankAmerica would not be affected by the weak results.

Strong performances from Manufacturers Hanover and Chemical Banking, however, renewed optimism for another reduction in US interest rates and lifted bank share prices.

"Clearly the industry picture *is better than Citicorp's*," said Mr James McDermott, an analyst at Keefe Bruyette. Beset by souring real estate loans, many US banks have curtailed new lending and a "credit crunch" has developed. Wells Fargo, one of the largest West Coast banks, also announced additional loan loss provisions yesterday.

"Citicorp's asset quality picture remains a problem," said Mr McDermott, "but the slowdown in its revenue line is also a concern."

Mr Reed said yesterday Citicorp now expected that "revenue growth will be lower than we planned". He warned: "Progress in revenue growth has been impeded by a difficult US and global economic environment, which shows little prospect of immediate improvement and led us to lower our revenue targets."

Accordingly, he claimed, the bank had decided on additional cost-cutting moves.

Although Citicorp announced plans last year to cut 8,000 of its 90,000 jobs, Mr Reed said an extra $302m reserve had been set up to cover further severance costs and premises writedowns over the next five quarters. Citicorp refused to say how many more jobs would go.

A second $430m charge is to cover the "restructuring" of the information business divi-

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World News

France and Germany plan corps for EC defence

France and Germany have proposed the transformation of the nine-nation Western European Union into a European Community-wide defence organisation which could call on European troops outside the Nato command structure.

Paris and Bonn will today announce how they intend to expand an existing Franco-German brigade and invite other WEU member countries to join in the creation of "a European corps". Up to 100,000 troops could eventually be involved. Page 16

Independent Bosnia
The Yugoslav republic of Bosnia-Herzegovina declared itself a sovereign state as fighting raged in Croatia, increasing fears of civil war. Page 16

Thomas optimism
Judge Clarence Thomas appeared certain to be confirmed as an associate justice of the US Supreme Court. After the Senate's week-long examination of whether Thomas had sexually harassed a former employee, he was expected to win between 12 and 17 votes from Democrats to add to those of 41 Republicans. Thomas needed support from at least 50 senators.

Lockerbie plea rejected
An appeal for punitive damages against Pan Am, the US airline, by relatives of those killed in the bombing over Lockerbie, Scotland, of a Pan Am jet in 1988 was rejected by the US Supreme Court. Page 7

Algeria election date
Algerian radio said the country's first multi-party general election was expected to be held on December 26.

Union leaders convicted
Jay Naidoo, leader of South Africa's biggest trade union federation, and two other union officials were convicted in Johannesburg of kidnapping and assaulting a black security policeman they caught talking into a concealed radio outside their headquarters. Sentence will be passed today. Page 6

Swiss smash drugs ring
Swiss police have smashed a Yugoslav-led international arms and drugs ring, arresting 334 people and seizing heroin worth about $3.3m, the state-prosecutor's office said.

Nobel economics prize
British-born Professor Ronald Coase of the University of Chicago won the Nobel economics prize for his theories which helped explain why companies exist, and also why communist economies collapsed. Page 7; Editorial Comment, Page 14

Ozone loss warning
The loss of protective ozone over northern Europe could reach 30 per cent by the year 2000, Joe Farman, discoverer of the Antarctic ozone hole, warned. Page 12

PLO anger at exclusion
Palestine Liberation Organisation, angry at its exclusion from direct involvement in the proposed Middle East peace conference, will today consider whether to co-operate with US-Soviet peace efforts. Page 6

Commonwealth faith
British prime minister John Major, making his first appearance at the Commonwealth heads of government meeting in Harare, made a firm proclamation of faith in the future role of the 50-nation organisation. Page 6

Bear baiter
A retired woman fenced a bear with her umbrella after the animal escaped from a zoo at Wroclaw, southern Poland. She held it until zoo attendants arrived with a sleeping capsule.

Business Summary

Hoesch board opposed to Krupp plans for merger

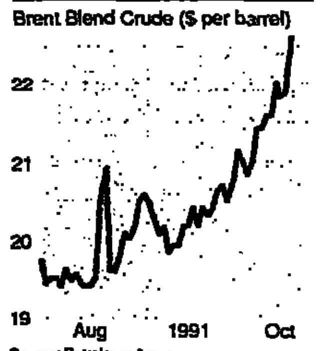
The management board of Hoesch, German steel and engineering company, is opposed to a merger with Krupp, the industrial group which last week said it owned a quarter of the shares and wanted a friendly merger.

Hoesch's workforce has come out against a merger. Without the board's support, Krupp could struggle to push through a merger, even though it claims a majority of shareholder support. Page 17

OIL: prices reached their highest level since the Gulf war when North Sea Brent crude oil for November delivery rose 30 cents to $22.50 a barrel. Page 30

Oil price

Brent Blend Crude ($ per barrel)



Source: Petroleum Argus

UK: Department of Trade and Industry is investigating up to 20 UK companies named by United Nations inspectors as suppliers to Iraq's nuclear, chemical and biological weapons programmes. Page 16

EC: restrictive government rules on where and how European Community pension funds should invest their Ecu700bn ($840bn) of assets will be lifted if member states adopt draft legislation which the European Commission is expected to approve today. Page 16

FRIENDS PROVIDENT, UK-based mutual life assurance company, will join Eureko, pan-European alliance linking powerful Dutch, Swedish and Danish insurance interests. Future plans include possible creation of a fully integrated quoted pan-European company. Page 17

BANKING: Norway may cut the cost of borrowing by banks as part of measures to support the banking system. Page 17

ACCOR, French hotel group, announced a 25.3 per cent profits fall for the first half, amid renewed speculation that it is about to increase its control over the hotel business of Wagons-Lits, the Franco-Belgian tourism group. Page 17

INTERNATIONAL Business Machines, world's largest computer manufacturer, reported an 84 per cent drop in third-quarter earnings. Net earnings for the quarter were $172m compared to $1.11bn year on year. Page 20

FOKKER, Dutch aerospace company, is considering launching a $200m global equity offering to help fund development of new aircraft. Page 21

MERRILL Lynch and PaineWebber, two of the biggest US broking houses, saw strong third-quarter earnings, providing new evidence of a revival on Wall Street. Page 20

JAPANESE retailers fear a tough second half after leading department stores reported mixed results for the first half and pointed to the lowest year-on-year increase in sales for eight years. Page 19

SABRE, computer reservation division of American Airlines, and Amadeus, the system owned by Air France, Lufthansa and Iberia, two of the world's largest airline computer reservation systems, failed to agree to forge a significant partnership in Europe. Page 18

Central bank governors fear liquidity crisis could damage payments system

Soviet banks in west may get G7 safety net

By Peter Norman, Economics Correspondent, in Bangkok

CENTRAL BANK governors from the Group of Seven leading industrialised countries have been discussing a financial "safety net" for the western subsidiaries of Vneshekonombank, the Soviet Bank for Foreign Economic Affairs.

The talks, initiated by the Soviet bank, aim to avoid damage to the western financial and payments system should one of the subsidiaries suffer a liquidity crisis.

G7 officials said the Moscow-based bank saw its foreign subsidiaries as a potentially weak link in its network that might trigger a broader liquidity crisis. The subsidiary considered most at risk is the London-based Moscow Narodny Bank, which is active in the foreign exchange and other financial markets.

The Soviet bank also owns Banque Commerciale de l'Europe du Nord in France and Ost-West Handelsbank in Frankfurt and has an offshoot in Vienna.

The safety net is one of several measures being prepared by G7 finance ministers and central bankers in case the Soviet Union suffers a liquidity crisis and cannot service its estimated $60bn foreign debt.

These fears centre on the failure of the Soviet payments system to channel sufficient foreign exchange from the republics to Vneshekonombank to service the debt. Western officials hope, however, that the Soviet authorities will be able to avoid a crisis through their own efforts.

Soviet passport row ....Page 2
Mikhail Gorbachev makes a comeback........................Page 2
IMF-World Bank meeting reports..............................Page 7

Officials say the central bankers have discussed providing a loan for Vneshekonombank through the Basle-based Bank for International Settlement should its foreign banks require support. This would be guaranteed by the G7 central banks, which in turn would be backed by their governments.

The central bankers would also expect Vneshekonombank to harness the Soviet gold reserves in support of its subsidiaries in case of crisis. This helps explain the heightened interest among western monetary officials over the true size of the Soviet gold holding.

Mr Grigory Yavlinsky, head of the Soviet delegation attending this week's annual meeting of the International Monetary Fund and World Bank, has said the reserves total 240 tonnes, worth around $2.6bn.

But it is unclear whether this figure includes gold held in the republics. According to one G7 official yesterday, the IMF says the Soviet Union could have between 600 tonnes and 1,200 tonnes of gold.

Officials from the G7 countries – the US, Japan, Germany, France, Britain, Italy and Canada – hope that the Soviet Union's creditworthiness will be maintained and that it will continue to qualify for western government loans.

Fears that the Soviet Union will be unable to service its foreign debt have mounted since it became clear that foreign exchange receipts were being retained in the republics rather than sent to Vneshekonombank. The economic pact initialled last week by 10 republics and the centre provides for a system to channel foreign currency to Moscow.

A priority task for the mission of senior G7 officials, which is expected to visit the Soviet Union in the next fortnight, will be to help create a mechanism to channel foreign exchange from the republics to the centre. It will also try to convince the republics that they have an interest in preserving the Soviet Union's creditworthiness.

There were signs yesterday that the Ukraine, which wants to become an IMF member in its own right, might be prepared to maintain its economic links with the centre and not push ahead with plans for its own currency.

Slow trading in Tokyo as government sanctions against the four biggest brokers start

Big Four start to pay penance

By Emiko Terazono and Robert Thomson in Tokyo

IDLE STOCK salesmen watched training videos, while their executives promised that the bad old days were over and the Tokyo stock market was its normal eccentric self – leaping higher on reports that a leading milk producer has a potential cure for the virus which causes Aids.

It was Day One of the Big Four brokers' penance. The biggest broker of all, Nomura Securities, started a video lecture series for staff who would have otherwise been pounding the pavement and promoting stocks. The series began with a rerun of a motivational speech by its president, and will continue today with a lecture entitled The Role of Securities in the Economy.

Nomura is supposed to suffer most, with 86 of 152 branches and its head office banned from selling equities for up to six weeks, but some Japanese investors complained that they were doing the suffering.

Watching Nomura's electronic stock boards flash up a 1.9 per cent gain in the Nikkei index yesterday, a 63-year-old investor called for "another form of punishment that doesn't stop us from trading shares".

The brokerage has been punished for "excessively promoting" the stock of Tokyu Corporation, a railway operator in which an alleged gang leader

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Interest rate cut urged, Page 6
World stock markets, 42

Eurotunnel takes TML to court over work dispute

By Andrew Taylor, Construction Correspondent, in London

THE ACRIMONY over the £8bn Channel tunnel project reached a new peak yesterday when Eurotunnel announced that it was taking court action against its builders who have threatened to halt work unless they are paid more.

The latest escalation in the two-year dispute over cost *increases has prompted a* warning from Transmanche Link (TML), a consortium of five British and five French construction companies, that the tunnel is unlikely to be to *open for service* until March 1994, nine months later than planned.

TML says that delays in delivering shuttle wagons for cars, lorries and coaches are likely to be much greater than Eurotunnel has indicated. This could mean that full testing of the railway system might not start until Christmas, 1993.

Eurotunnel will tomorrow apply for an injunction in London to prevent TML stopping work on the installation of a cooling system in the tunnels.

TML says the cooling system was not included in the original design and that money provided by Eurotunnel for its *installation is insufficient.*

TML is claiming additional payments of up to £800m at 1985 prices to cover the increased cost of fitting out twin rail tunnels, including *installation of the cooling system*, and building two large passenger terminals at Folkestone, Kent, and at Sangatte, in northern France.

Sir Alastair Morton last week announced that the total cost of the project, after allowing for inflation and interest, had risen from £4.8bn in 1987 to £8.05bn. This included an extra £400m to meet the total cost of design changes to shuttle wagons requested by the safety commission established by the British and French governments to oversee the project.

Eurotunnel's share price since it announced the redesign of the shuttle wagons, last week, has fallen 65p to 459p.

Senior TML executives strongly criticised Eurotunnel's management of the project, particularly its failure to *respond sufficiently quickly* to demands to redesign shuttle wagons.

TML was concerned that further last minute design changes might be imposed on *the project following consider*ation by the safety commission of signalling systems and the ability of fixed equipment in the tunnels and terminals to respond to seismic shocks.

Eurotunnel yesterday insisted that it would have sufficient rolling stock to provide a restricted service from June, 1993, when the tunnel is due to open, and would be operating a full service from October, 1993.

Eurotunnel said last night: "The contractors are clearly feeling under pressure and are throwing up a lot of chaff todeflect comment and public attention from their own shortcomings."

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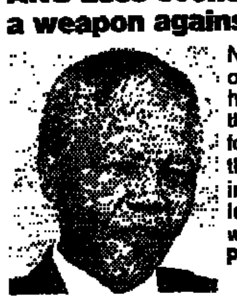
ANC uses economic threats as a weapon against Pretoria



Nelson Mandela and other ANC leaders have begun to use the threat of defaulting on foreign loans should they ever gain power in South Africa as a lever in negotiations with Pretoria
Page 6

MARKETS

STERLING
New York:
$1.704
London:
$1.702 (1.7165)
DM2.9125 (2.9175)
FFr9.9175 (9.9375)
SFr2.5425 (2.55)
Y221.5 (222.0)
£ index 90.2 (90.4)

GOLD
New York: Comex Dec
$360.1 (361.3)
London:
$358.15 (358.05)

N SEA OIL (Argus)
Brent 15-day Nov
$22.175 (22.0)

Chief price changes yesterday: Page 17

DOLLAR
New York close
DM1.71335 (1.7165)
FFr5.8355 (5.8155)
SFr1.4960 (1.4865)
Y130.0 (129.4)
London:
DM1.7115 (1.6995)
FFr5.8275 (5.79)
SFr1.4935 (1.4855)
Y130.2 (129.35)
$ index 64.9 (64.5)
Tokyo close:129.72

US CLOSING RATES
Fed Funds $5\frac{1}{4}$% ($5\frac{1}{4}$%)
3-mo Treasury Bills:
yield: 5.082% (5.103%)
Long Bond:
$103\frac{1}{32}$ ($102\frac{14}{32}$)
yield: 7.853% (7.901%)

STOCK INDICES
FT-SE 100:
2,576.7 (+2.2)
FT Ordinary:
1,973.5 (-0.1)
FT-A All-Share:
1,241.92 (same)
FT-A World Index:
146.40 (+0.5)
New York
DJ Ind. Av.
3,041.37 (+21.92)
S&P Comp
391.01 (+4.54)
Tokyo: Nikkei
24,307.85 (+446.98)

LONDON MONEY
3-month Interbank:
closing $10\frac{7}{16}$ ($10\frac{13}{32}$%)
Liffe long gilt future:
Dec$94\frac{13}{16}$ (95)

EUROPEAN NEWS

ABP boosted by pension fund ruling

By Ronald van de Krol in Amsterdam

THE EC Commission's proposals to eliminate restrictions on pension fund investment will be a boost for ABP, the Dutch civil servants' pension fund, which has campaigned quietly to gain greater freedom in investing its vast resources. The Commission is expected to approve a draft directive on the restrictions today.

ABP was until recently a shackled giant and, despite some liberalisation in Dutch rules, it continues to operate under very strict limits set by the finance ministry.

Since 1988, the fund, whose full name is Algemeen Burgelijk Pensioenfonds, has been allowed to invest overseas for the first time, provided that its international investments do not account for more than 5 per cent of its assets of Fl 157.5bn ($81.8bn).

Besides these geographical restrictions, the fund – the world's second largest pension fund after TIAA-CREF, a pension fund for teachers in the US – is barred from owning more than 5 per cent of a single company's share capital or from investing more than 20 per cent of its assets in shares and property. As much as 90 per cent of its investments are currently in fixed-interest bonds, loans and mortgages.

Not surprisingly, it is by far the biggest investor in Dutch state bonds used to finance the Netherlands' budget deficit.

ABP's management has been waging a quiet campaign to get the government to liberalise its rules still further. The fund wants to be able to invest more than 5 per cent of its assets overseas, and it is also seeking permission to expand property and share purchases. At current rates of investment, ABP is expected to reach its 5 per cent ceiling on foreign investment sometime in late 1992 or 1993.

Over the past three years, ABP has gradually taken up its new freedom to buy foreign shares, bonds and property, though these assets still represent only a fraction of the pension fund's total holdings.

Republics find they need Gorbachev after all

The president's comeback shows that a unifying figure is still necessary, writes Leyla Boulton

TWO MONTHS after the abortive coup stripped him of real power, President Mikhail Gorbachev has emerged as an indispensable rallying point for attempts to keep together some form of the old Soviet Union.

If he has managed to claw back some of his old authority, it is not just through sheer force of personality, but because the republics still need him. The reasons for preserving some kind of unifying presidential figure, even if only temporarily, are twofold.

One is to avert the danger of an uncontrolled, bloody break-up. At the weekend Mr Gorbachev attacked politicians in the Russian Federation who saw the union as a temporary structure which they could quit later. "If there is a conflict based on this kind of approach, then this is not Croatia and Serbia – this would be far more terrible," he warned on television last weekend.

The other reason is to conduct relations with the outside world – not because the republics necessarily want this but because the outside world is perceived as wanting a single interlocutor in matters such as arms control and economic co-operation.

"The west wants to have at the other end of the table just one person, not a crowd of people who hate each other," said Mr Sergei Parkomenko, a commentator for Nezavisimaya (Independent) newspaper. His experience in foreign affairs and defence is still unchallenged – witness the fact that it was President Gorbachev who handled the Soviet response to President George Bush's arms reduction proposals.

For visiting business delegations, a meeting with Mr Gorbachev is still the ultimate trophy – North American pension fund managers, for example, were delighted when they managed to see him last week. And the president can only gain from the fact that his erstwhile rival turned saviour, Russian president Boris Yeltsin, has been battered by ferocious political infighting within his own inexperienced new leadership.

The vehicle which would retain some kind of job for Mr Gorbachev is the draft treaty which he has submitted to republic leaders for a new union of sovereign free republics. It will not enlist the support of all 12 remaining Soviet republics, which are already having enough trouble agreeing to a badly-needed economic union. But if it obtains the support of core republics – Russia, Kazakhstan, Belorussia, Uzbekistan, and other central Asian republics – then there is a basis for a new state.

Apart from having the advantage of retaining the USSR acronym in Russian, it would give member states an unprecedented independence. They would be free to join the United Nations and issue their own passports, while retaining the notion of Soviet citizenship.

Mr Grigory Revenko, the new head of the president's staff, said in an interview that he believed the treaty would be ready for signing in November and would receive the support of at least eight republics.

Mr Revenko, who is working hard to revive his master's lost authority, also says the president will soon launch an important initiative for a "radicalisation of political and economic life" addressed directly to the people, over the heads of republican parliaments and leaders.

"I am working to build up an apparatus which will ensure the president is always two steps ahead of everybody else," said Mr Revenko, formerly Mr Gorbachev's adviser on relations with republics.

The president has dropped many of his old conservative approaches to problems – for instance his demand for the tortuous method of a referendum to decide the issue of private land ownership.

He has even managed to attract the support of the country's new entrepreneurs – who previously suffered from his decrees but who now see him as a valuable champion of a common market.

A new presidential Council of Entrepreneurs, gathering leading business figures, is preparing to rescind old anti-business legislation – such as Mr Gorbachev's decree allowing the KGB to storm into any business to inspect its books – and to prepare new decrees promoting entrepreneurial freedom.

Mr Gorbachev has also managed to draw back some of the country's most respected politicians and economists whom he dumped last winter in a conservative clampdown. Office number 45, once occupied by Mr Valentin Pavlov, the disgraced former prime minister, has been empty since his arrest for taking part in the coup.

But Mr Eduard Shevardnadze, the ex-foreign minister, and Mr Nikolai Petrakov, the prominent economist, now once again walk the corridors of the Kremlin after joining the president's new consultative committee.

However, the centrifugal forces in what is left of the Soviet Union are so strong that, while Mr Gorbachev has a unique chance to make up for his past mistakes in office, it may already be too late for him to do so.

Soviet armed forces chief of staff Gen Vladimir Lubov, visiting France for five days, leaves the National Assembly after attending a defence committee meeting

Tallinn plan offers citizenship to most non-Estonians

THE Estonian parliament yesterday adopted a draft bill that would offer citizenship to most of the republic's 39 per cent non-Estonian population, Gillian Tett and Leyla Boulton write from Moscow.

The proposed bill offers citizenship to all of the 1.6m residents who have lived in the republic for longer than two years and are fluent in the Estonian language (the government is promising one year's free language tuition to all non-Estonians). It comes after several weeks of heated debate about the future of the republic's non-Estonian, mostly Russian, population.

Estonian nationalist groups, which exercise considerable influence in the republic's parliament, have been holding demonstrations to oppose offering citizenship to the republic's non-Estonians, most of whom arrived in the republic after Soviet annexation. They indicated yesterday that they intended to continue to fight the implementation of the bill.

They argue that, since Estonians are in danger of becoming a minority in their own republic, citizenship should be offered only on the basis of stringent Estonian language tests and extended periods of residence.

However, the Estonian parliament, seems to be adopting a more liberal approach, partly to avoid tarnishing its attempts to present a democratic image to the west, and partly to avoid antagonising neighbouring Russia and provoking unrest within its Russian community. The government has pledged to provide one year's free language tuition for all non Estonians.

The news agency Baltfax reported that discussions would be started among Estonia and Russia, Belorussia and the Ukraine to decide the status of non-Estonian citizens in Estonia. Russia, Estonia's most immediate neighbour, has not yet indicated whether it will offer Russian citizenship in place of Soviet citizenship to Russians in the Soviet Union.

According to a poll last week, 53 per cent of non-Estonians wish to retain their Soviet citizenship, with only 44 per cent wishing to apply for Estonian citizenship. However three quarters wished to stay in Estonia, where living conditions are generally better than in neighbouring Soviet republics.

Estonian leaders fear, though, that many of these non-Estonians could face unemployment and worsening living conditions in Estonia. Most of the Russian-speaking population work in industrial enterprises and military complexes which now face an uncertain economic future.

● In Moscow yesterday, a promise to abolish the Soviet Union's tyrannical system of internal residence permits, required by citizens wanting to move to another city, ran into trouble.

Mr Sergei Alexeev, chairman of the constitutional compliance committee, said on Monday the system would be abolished from next year because it was unconstitutional.

However, the vice mayor of Moscow, Mr Yuri Luzhkov, said yesterday the city's prime duty was to look after the welfare of its 9m inhabitants. He said 800,000 people were already waiting for flats, and food supplies were already stretched by trade barriers put up elsewhere in the country.

The *propiska* system, which controlled citizens' movements for decades of totalitarian rule, has been a big obstacle to setting up a free labour market. It also has no place in any common market which may be set up in the future.

● Lithuania has applied to join the Eutelsat European satellite and communications network, the first of the newly independent Baltic states to do so, Eutelsat said yesterday. Reuter reports from Paris.

Eutelsat satellites already make it possible to receive and transmit European television broadcast in the Baltic state, but membership will entitle Vilnius to participate in Eutelsat commercial activities, the organisation said.

Eutelsat operates six satellites for fixed and mobile communications.

EC energy break-up plan to be discussed

By Andrew Hill in Brussels

CONTROVERSIAL plans to break up European Community electricity and gas production monopolies and increase consumers' choice of energy suppliers will be discussed today for the first time by all 17 European commissioners.

Mr Antonio Cardoso e Cunha, the energy commissioner, and Sir Leon Brittan, the commissioner responsible for competition, will table their joint plans to improve competition in the energy sector.

However, formal decisions are unlikely to be made.

According to a Commission official, Mr Cardoso e Cunha wants to present EC energy ministers with the broadly agreed "guidelines" for Brussels' strategy when they meet on October 29.

He still hopes directives to liberalise the EC energy market by 1993 will be adopted by the end of this year.

The commissioners' tentative approach reflects the storm of protest which the long-awaited proposals have already whipped up outside Brussels.

The suggestion that the Commission might introduce a measure of third party access – which would allow consumers to buy energy from suppliers in other EC countries – has been sharply criticised by the gas and electricity industries in continental Europe.

The industry and the member states are also sensitive to the possibility that Article 90 of the Treaty of Rome – which allows the Commission to push through legislation without the formal approval of member states – might be used to break down monopolies in energy production.

It now seems more likely that Article 90 directives will be held as a weapon of last resort to be used only if the industry is not opened up quickly enough.

The ground rules for a new, liberalised energy market will instead be established by ordinary directives, approved by a qualified majority of states.

EUROPEAN NEWS

Agency will seek to renegotiate sale of 'undervalued' companies

Treuhand has second thoughts

By Leslie Colitt in Berlin

THE TREUHAND privatisation agency in Germany signalled yesterday that it would seek to renegotiate the sale of two east German electronics companies to west German investors following allegations that it grossly underestimated the value of the companies.

A statement by the agency said the preliminary results of a special investigation, launched earlier this month, into the sales of the companies warranted their "complete renegotiation".

The companies were sold to property developers at a nominal price. GWR electronics company in Teltow, a suburb of Berlin, was sold for DM1 and Eltronik, a neighbouring company, was also sold cheaply but the Treuhand has not disclosed the precise figure.

Its investigation revealed that the GRW property, which the agency evaluated at no more than DM2m (£600,000) was worth a "two digit figure in the millions", according to Mr Wolf Schöde, the Treuhand spokesman.

Mrs Birgit Breuel, president of the agency ordered that no further details of the investigation be disclosed, a Treuhand official said.

Earlier, the Berlin public prosecutor confirmed that Mr Harald Lang, the senior Treuhand official who negotiated the sales, was being investigated on suspicion of fraud, along with other unnamed people.

The DM1 price for GRW to Mr Claus Wisser, a Frankfurt investor, was disclosed late last month by the magazine Der Spiegel. Eltronik was sold to Mr Roland Ernst, an investor who worked with Mr Wisser. Other bidders who had promised to continue industrial production on the sites were turned down. The two companies employ several thousand workers between them.

Mr Wisser and Mr Ernst agreed, when they bought the companies, to invest DM120m in commercial parks on GRW's property. They said they would employ at least 1,500 workers. Neither of the two companies would comment yesterday.

Mr Wisser said recently that the contract of sale was "legally binding". He also acknowledged that he "made a profit" in buying GRW but that this first became evident after the contract had been signed last July.

The disclosures yesterday were among the most serious to hit the Treuhand since its founding 18 month ago and raised the question about the agency's accountability.

Mr Richard von Weizsäcker, the German President (pictured above left with Mrs Birgit Breuel, the Treuhand president), said during a visit to the agency yesterday that it was engaged in a task "without parallel in international economic history". In privatising east German companies he urged as much restructuring and as few closures as possible.

France's annual inflation rate falls

By William Dawkins in Paris

FRANCE continued to keep a tight grip on inflation last month, when consumer prices rose by 0.2 per cent, the same as in August, according to provisional figures from the Insée state statistics institute.

This brings the annual inflation rate down to 2.6 per cent in September, from 3 per cent in August. It also widens the gap below the German inflation rate, one of the main benchmarks used by the government's economic planners.

French inflation was 1.3 percentage points below Germany's annual inflation rate in September, against 1.1 points in August. This compares with Britain's 4.1 per cent.

● The French government yesterday authorised its domestic intelligence agency to keep computerised files on citizens, Reuter reports from Paris. the The Renseignements Généraux intelligence service will be allowed to list people's political or trade union activities but not their opinions.

Physical features may be noted in the case of terrorist suspects, but racial or ethnic origin cannot be recorded.

Nato nuclear cuts amount to 80% of European stockpile

By David White, Defence Correspondent

NUCLEAR ARMS cuts due for approval by Nato defence ministers this week are expected to amount to about 80 per cent of the alliance stockpile in Europe.

The ministers are set to agree on the extent of the reductions at a two-day meeting of Nato's nuclear planning group (NPG) beginning tomorrow in Taormina, Sicily. But they may seek to hold back an official announcement until next month's Nato summit in Rome, which has been called to put the seal on a new "strategic concept" for the alliance.

Nato's stockpile of tactical nuclear weapons will be reduced to several hundred aircraft bombs. Current holdings – almost all US warheads but including some British weapons – are estimated at about 3,500.

This is less than half the peak level of the 1970s. Earlier reductions were the result of unilateral Nato measures in 1979 and 1983, mostly involving outdated weapons, and the elimination of intermediate-range missiles under the 1987 intermediate-range nuclear forces (INF) treaty between the US and Soviet Union.

Although the reductions will be presented as a significant political gesture, they represent little military sacrifice. Almost all the weapons were already considered obsolescent or inappropriate.

Abandonment of short-range army nuclear weapons became a foregone conclusion after last year's decision by the US not to make up-to-date replacements for Lance missiles and 155m nuclear artillery shells. Announcing wide-ranging nuclear disarmament proposals last month, President Bush said the US would "bring home and destroy" all its nuclear shells and short-range ballistic missile warheads.

These weapons, allocated for use by other Nato armies as well as US forces, have been rendered irrelevant by the disappearance of a direct military threat on Nato's borders.

Even while a central front still existed between Nato and the Warsaw Pact, some military experts considered short-range nuclear weapons as being of little practical value against an invasion, because of the time that would be required to obtain a political decision to employ them.

Soviet proposals announced earlier this month in response to Mr Bush's initiative include similar measures to destroy all nuclear artillery ammunition and warheads for tactical missiles. Nato's plans also involve cuts in free-fall aircraft bombs. These consist of an estimated 900-1,300 US bombs stored at airfields in Europe and 100-200 British bombs. The US has already promised to remove all tactical nuclear weapons from ships and submarines, including depth charges stored in Europe.

This week's decisions will not affect France's independent nuclear arsenal. However, France has already trimmed back plans for a new short-range ground-based missile, the Hadès, from 120 to 30 units. These are no longer due to be deployed but to be placed directly in storage.

Defence ministers will also discuss nuclear policy aspects of the new Nato strategy.

They will, however, try to avoid raising a debate about future deployments of air-launched nuclear missiles. Replacing current gravity bombs, these would become the only sub-strategic weapons still fielded by Nato.

The UK and the US are seeking a formula of words which would cover their introduction in future. At their last nuclear meeting in May, ministers reaffirmed "a need for sub-strategic forces to be based in Europe." However, there is a clear reluctance among European allies to commit themselves to such a weapon.

Agency may need extra Bonn cash

By David Marsh

THE TREUHAND is likely to have to increase its call on government funds next year as a result of lower income from disposals of assets and higher interest charges, Mr Andre Leysen, a member of the holding company's supervisory board, said yesterday.

Mr Leysen, the Belgian businessman and one of the two foreigners on the board, admitted that the company "will never break even" but indicated that the main financial problems stemming from regeneration of east German industry would be surmounted after the next two to three years.

The Treuhand this year is drawing on DM25bn (£8.6bn) of funds from the Bonn Finance Ministry to cover its deficit, which for 1991 includes a period running beyond the normal 12 month calendar year.

Mr Leysen, chairman of the Belgian financial holding company Gevaert, pointed out that the Treuhand had taken over DM100bn of debts from the old state-owned East German industrial sector. For budgetary reasons, Bonn was not servicing these debts itself, but none the less had eventually to pick up the bill.

Mr Leysen, who was speaking at the Royal Institute of International Affairs in London, came out strongly against any question of turning into a permanent vocation the Treuhand's short-term job of reorganising east German industry. Emphasising that he was speaking in a personal capacity in a highly politicised area, he said his previous business experience had taught him that turning the Treuhand into a fully-fledged state holding concern with a long term interest in running industrial companies would simply lead to undesirable growth in the state sector.

E German output fluctuates wildly

By Quentin Peel in Bonn

INDUSTRIAL production in former East Germany is showing little sign of stabilising, but rather is subject to large and erratic swings from month to month, and sector to sector.

At the same time, the first figures for a full year's production since monetary union show devastating declines of more than three-quarters in the output of sectors such as precision engineering, office equipment, and steel foundries. Overall industrial production was down by 43 per cent over the year.

The latest monthly industrial production figures – for July – show a renewed but marginal decline in the east of just 1 per cent compared with June, after two months of gradual recovery. However, the figures disguise both the erratic behaviour of all industrial sectors, and the overall slump.

For example, the chemical industry showed a monthly improvement of 22 per cent in March, a decline of 15.8 per cent in April, a further decline of 17.8 per cent in May, before stabilising with a 0.6 per cent recovery in June and an 11.7 per cent growth in July. Year-on-year, the industry showed a 40.2 per cent drop.

As for mechanical engineering, the same period showed stagnant production in March, a drop of 12.5 per cent in April, a recovery of 10.9 per cent in May, another growth of 14.7 per cent in June, before a renewed slump of 10.2 per cent in July. The overall decline was 56.9 per cent, according to the Economics Ministry figures.

The industries least affected by the general collapse were oil refining – down 4.3 per cent overall, and food production, down by the same amount. Printing showed an increase of 21 per cent.

● Mr Jürgen Möllemann, the economics minister, yesterday called for new cuts in coal production, to reduce total output from 70m tonnes a year to 45m-50m tonnes by the year 2005, including cuts of 4m tonnes in coke production. He presented his demand to the industry at the opening of a new "coal round" in Bonn to negotiate government support until the end of the century.

The preliminary talks will resume on November 4.

The Financial Times (Europe) Ltd
Published by The Financial Times (Europe) Ltd., Frankfurt Branch., (Guiollettstrasse 54, 6000 Frankfurt-am-Main 1; Telephone 069-75980; Fax 069-722677; Telex 416193 represented by E. Hugo, Frankfurt/Main, and, as members of the Board of Directors, R.A.F. McClean, G.T.S. Damer, A.C. Miller, D.E.P. Palmer, London. Printer: Druck Vertrieb und Marketing GmbH, Frankfurt. Responsible editor: Richard Lambert, Financial Times, Number One Southwark Bridge, London SE1 9HL. The Financial Times Ltd, 1991.

Registered office: Number One, Southwark Bridge, London SE1 9HL. Company incorporated under the laws of England and Wales. Chairman: D.E.P. Palmer. Main shareholders: The Financial Times Limited, The Financial News Limited. Publishing director: J. Rolley, 168 Rue de Rivoli, 75044 Paris Cedex 01. Tel: (01) 4297 0621; Fax: (01) 4297 0629. Editor: Richard Lambert. Printer: SA Nord Eclair, 15/21 Rue de Caire, 59100 Roubaix Cedex 1. ISSN: ISSN 1148-2753. Commission Paritaire No 67808D.

Financial Times (Scandinavia) Vimmelskaftet 42A, DK-1161 Copenhagen-K, Denmark. Telephone (33) 13 44 41. Fax (33) 935335.

WORLD TRADE NEWS

Australia offer on trade in services

By Kevin Brown in Canberra

AUSTRALIA is preparing a revised offer on liberalisation of trade in services as part of a campaign to extract concessions on farm trade in the Gatt Uruguay Round talks.

The offer, to be tabled in the Australian parliament tomorrow, is intended to encourage the EC to respond to pressure from the 14-member Cairns Group of farm exporters for radical changes to the Common Agricultural Policy (CAP).

It follows talks in Europe between EC farm ministers and Australian officials led by Mr Neal Blewett, trade negotiations minister, who heads the 14-strong Cairns Group.

"The point was made to me frequently in Europe that if the Europeans were going to have to take tough political decisions on agriculture, then they particularly wanted to see a successful agreement on services," Mr Blewett said yesterday. (

Australia had developed the revised offer independently of the Cairns Group, which has avoided discussions on non-farm issues to minimise divisions between the members, ranging from Canada to Chile.

However, he said Australia had pressed individual members of the group to make similar concessions to increase the prospect of "worthwhile returns" from the Uruguay Round for the EC's relatively strong services sector.

Mr Alejandro Foxley, Chilean finance minister, said in Santiago recently that Chile was discussing a revised offer on services and investment rules with a number of other Cairns Group countries. Mr Blewett refused to give details of Australia's revised offer.

The initial offer sought to apply most of the basic Gatt principles to services, including equal treatment for all member countries, transparency of regulations, and equal treatment for foreign and domestic companies. The Australian move follows evidence of increased flexibility on CAP reform, particularly from Germany, which Mr Blewett described as "encouraging".

Blewett: independent

However, he said it remained unclear how much room for manoeuvre the member states would allow the EC, in view of continued French and Irish hostility to reform. Mr Blewett said he had warned EC ministers that the Cairns Group would not settle for an "insubstantial" deal on agriculture simply to achieve an agreement. He said reform proposals tabled by Mr Ray MacSharry, EC agriculture commissioner, indicated "a real readiness for reform" but were "disappointing" because they failed to offer substantial reductions in export subsidies or improvements in access to European markets.

Mr Blewett said several other countries had supported his suggestion that Mr Arthur Dunkel, director-general of Gatt, should table detailed proposals on a take-it-or-leave-it basis if the talks are still deadlocked by the end of November. "I recognise that this is a high-risk strategy, and that it is a last resort, but I am not the only one making that recommendation to Dunkel," he said.

"There is a real sense that the decisions have to be made by mid- to late November. If they are not ... then the round will not be completed before, at the best, 1993."

German farm minister renews warning

MR Ignaz Kiechle, German farm minister, yesterday renewed his warning that he will not allow German farmers to suffer from Gatt's Uruguay Round negotiations on dismantling farm subsidies, nor abandon his traditional alliance with France in defence of the European Community's agriculture policy, Quentin Peel reports from Bonn.

In a statement issued in Bonn, Mr Kiechle accused Mr Jürgen Möllemann, economics minister, of exaggerating the significance of last week's German Cabinet decision agreeing to make "binding commitments" on dismantling farm subsidies over five years.

He denied the European Community's "blocking minority" of France, Germany and Ireland had been effectively broken by the German move, as Mr Möllemann claims, and insisted he would keep up his co-operation with France both in negotiating EC farm reform and in Gatt negotiations.

Mr Kiechle, who represents the conservative Bavarian-based Christian Social Union (CSU) in the Bonn coalition, agreed to a compromise last week which would allow negotiations on price support, import protection and export subsidies, but would seek to replace those with direct income compensation.

His sharp response to the interpretation of the German decision in Brussels and Geneva suggests he intends to fight on to protect European agriculture from the full force of international competition. Far from abandoning France and Ireland, Mr Kiechle said it was essential to find a solution acceptable to them. He rejected a statement by Mr Hugo Paemen, the EC's chief negotiator in Geneva, that the blocking minority had been broken.

Mr Kiechle said that Mr Möllemann was putting too broad an interpretation on the German cabinet decision.

Mr Ray MacSharry, European farm commissioner, is encouraged by Germany's declaration of support for the Commission's negotiating stance in stalled world trade talks, he said yesterday, Reuter reports from Brussels.

An EC official quoted him as saying he believed Germany's move last week was positive and supportive of Common Agricultural Policy reform. Germany's declaration was completely in line with the Commission's position and Mr MacSharry did not intend to ask farm ministers for a new mandate as they had already given him the room he needed for efficient negotiation.

Paris anxious over isolation on farm issue

THE French government, under pressure from a wave of farmers' protests, has contradicted reports that the EC has eased its negotiating position on farm trade in the Uruguay Round, Ian Davidson reports from Paris.

At the week-end, Mr Frans Andriessen, chief EC trade negotiator, said he was confident he had won extra negotiating room, after a meeting of Community trade ministers was told the German government was abandoning its previous hard line backing high farm price supports. But yesterday, the French Finance Ministry underlined that the Brussels Commission could not alter its negotiating position without a new mandate from the Council of Ministers, and the EC's existing negotiating position had been confirmed.

The Ministry said that a majority of the member states considered it was up to the US to show flexibility in the Uruguay Round talks.

Yesterday's statement is evidence of the French government's growing anxiety that the defection of the Germans may be isolating France as the only major member of the 12 still resisting pressure for radical reductions in Community farm protection.

US group in deal to upgrade Saudi refineries

By Mark Nicholson

FOSTER WHEELER, the US engineering and construction group, has signed a letter of intent with Samarec, the Saudi Arabian oil marketing company, to manage the upgrading of three Saudi oil refineries as part of the kingdom's multi-billion-dollar programme to develop its downstream oil facilities.

Foster Wheeler will undertake programme and bid management and some engineering work for the first phase of \$4bn (£2.3bn) plans to upgrade the refineries at Yanbu, Riyadh and Jeddah. At present, these refineries have a combined capacity of 400,000 barrels a day.

The value of Foster Wheeler's contract was not revealed.

The management contract forms part of an ambitious Saudi investment programme in its refineries which could cost more than \$16bn over 10 years and will boost refining capacity from all seven of the country's refineries towards 2m b/d from the present 1.8m.

The project will run in tandem with investments of up to \$15bn in a long-term programme to expand Saudi oil production capacity from around 8.5m b/d to 10m b/d.

The upgrading will increase the output of higher-value, lighter oil products – notably high-octane unleaded petrol – from the three refineries, which at present concentrate on fuel oil production.

Catalytic crackers and desulphurisation units will be installed at the three refineries, which were built in the 1970s and early 1980s.

Saudi Arabia also plans to increase output at its Ras Tanura refinery, the world's biggest, which has a capacity of 530,000 b/d.

Plans for an expansion and overhaul at the plant, owned by Saudi Aramco, the state oil company, are thought likely to cost upwards of \$12bn over the next six years. Saudi Arabia also has three 50/50 joint venture refineries, at Jubail, jointly owned by Shell, Yanbu, owned jointly with Mobil, and Rabigh, owned with Petrola.

Delhi 'road-show' aims to boost inward investment

By David Housego in New Delhi

INDIA, at last shedding its official distaste for business and profit, is organising a "road-show" in Singapore this week to encourage multinationals to invest in India.

Dr Manmohan Singh, the Finance Minister, and Mr P. Chidamabaran, the Minister of Commerce, on Friday will be presiding over a one-day conference which 350 international groups based in South East Asia are expected to attend.

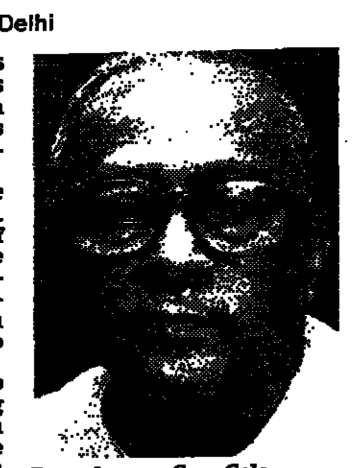
Breaking an old taboo against industrialists being included on a delegation with ministers and officials, the Indian team also includes a large group of Indian businessmen.

The aim of the one-day conference, being held at the initiative of the Singapore government, is to reverse India's image as a land of bureaucratic muddle hostile to foreign investment.

"This is the first time the government is going out to meet 400 industrialists with a one-focus message: invest in India," a senior official said.

A crisply-presented video made for the occasion describes India as "the land of new opportunities."

The commentator says that for "the first time in 44 years, India has opened its doors, offering a huge market with trained manpower to back it and a well-developed private sector."



Basu: favours Coca-Cola

The new attempt at aggressively marketing India's economic reforms comes in the wake of strong support for the new economic policies from the International Monetary Fund and the World Bank at this week's meetings in Bangkok. The "road-show" also coincides with the substantive first signs of a pick-up in foreign investment which sank to a low of \$70m (£40.6m) of approvals last year.

The government announced last week that Kellogg, the US cereal group, will be setting up a \$40m breakfast cereal joint venture and that BMW of Germany is investing in a motorbike engine plant in a tie-up with Escorts, the Indian engineering group.

German officials, who have remained sceptical over the change of policies in India, were surprised last week when the government cleared five out of 28 Indo-German projects outstanding. Most of the projects cleared were small ventures.

In the expectation of tough questioning from businessmen at Friday's conference, officials have been hastening decisions on key issues.

A major unsettled question is the price at which foreign companies already established in India will be able to acquire shares to raise their equity holding to the 51 per cent now allowed.

Indicative also of the change in mood in India towards foreign investment is the growing competition between state governments to attract projects.

Mr Jyoti Basu, the marxist chief minister of Bengal, has let it be known that he would favour Coca-Cola setting up in his state.

The government has yet to take a decision whether to allow Coca-Cola to enter India.

The US soft drinks group is seeking to establish a joint venture with Britannia, the biscuit group controlled by Mr Rajan Pillai, who began his business career in Singapore.

World clothing exports draw level with textiles for first time

By William Dullforce in Geneva

WORLD EXPORTS of clothing at \$104bn (£60.4bn) equalled exports of textiles for the first time in 1990, according to a study by the International Textiles and Clothing Bureau. Both exceeded \$100bn for the first time.

Traditionally, exports of textiles have been larger. In 1974 they amounted to \$28bn, almost twice as much as clothing exports, but the clothing trade has consistently expanded faster.

The ITCB, which groups 22 developing-country exporters, charts exchanges in textile products for 1982-1990. During the whole period, the trade was governed by the Multi-Fibre Arrangement (MFA), the system of bilaterally negotiated import quotas, dismantling of which is one of the primary objectives of Gatt's trade-liberalising Uruguay Round.

Talks aimed at phasing out the MFA over a period of 10 years resumed in Geneva yesterday. Existing restrictions would hold back the growth of imports from developing countries during the 1990s, the ITCB study stated.

On the other hand, agreement in the near future on the gradual dismantling of the MFA would eliminate discrimination and remove a major impediment to trade flows.

An EC single market from 1993 would enable developing countries to make better use of access provided, letting them compete on equal footing with domestic suppliers. But the ITCB is more doubtful about EC concessions on imports from eastern Europe and the effect of the North American free trade area (Nafta) under negotiation between the US, Canada and Mexico.

Asia trade 'will fuel Hong Kong dynamism'

By David Dodwell, World Trade Editor

TRADE between the fast-growing economies of Asia, especially with China's Guangdong province, will fuel Hong Kong's economic dynamism in the coming decade, rather than North America, Europe or Japan, Sir David Wilson, the territory's governor, said yesterday.

Hong Kong's regional trade has grown 25 per cent so far this year, with China trade up 37 per cent in the past two years, Sir David told the annual dinner in London of the Hong Kong Trade Development Council (HKTDC). Asia's developing economies are likely to average economic growth rates double those of the western industrial economies, he claimed.

Dr Victor Fung, successor to Dame Lydia Dunn as HKTDC chairman, argued that Hong Kong "must play a mainstream role" in the regional trade expansion now under way, as well as probing emerging markets in eastern Europe and Latin America. Worries over international trade disputes affecting Hong Kong, such as the threat to China's Most Favoured Nation (MFN) status, anti-dumping allegations, the emergence of regional trade blocs, and the Uruguay Round impasse, made the emphasis on regional trade "more pressing".

Sir David forecast that the Pearl River Delta area, encompassing Hong Kong and Guangdong, could be one of the world's biggest manufacturing centres by the year 2000. Guangdong, with a population of 63m, was "probably the fastest growing major economy in Asia", he said. It has 15,000 direct foreign investment projects, worth over \$20bn (£11.6bn) Four-fifths of this investment has come from Hong Kong.

Canada lumber test speed-up

JAPAN has agreed to let the Council of Forest Industries of British Columbia (Cofi) inspect and certify lumber from western Canada for compliance with Japanese standards, Bernard Simon reports from Toronto. This will eliminate a troublesome non-tariff barrier, letting suppliers ship their lumber direct to customers without extra delay and costs.

Taiwan backs \$20m China deal

TAIWAN has approved the island's biggest investment project in China so far, easing fears that Taipei will take action to curb economic ties with the mainland in face of deteriorating relations, Reuter reports from Taipei.

Mr Vincent Siew, economics minister, approved an application by Cheng Shin Rubber Industrial to invest \$20m (£11.6m) in a tyre plant in China's coastal city of Xiamen, vice economics minister Wang Chih-kang said.

Last month, the Investment Commission shelved Cheng Shin's application because of fears that growing economic dependence on China would make Taipei vulnerable to political pressure.

Tension between Beijing and Taipei has been rising because of demands by the island's opposition groups that Taiwan abandon its goal of reunification with the mainland.

But Mr Wang said the project was finally approved because it would not threaten competing companies in Taiwan and because Cheng Shin had indicated its main operations would remain on the island. Economists estimate Taiwan businesses have poured over \$2bn into over 2,000 investments in China since the late 1980s.

"Approval of Cheng Shin's application should ease businessmen's fears that economic ties with the mainland will be restricted at a time when relations are worsening," one economist said.

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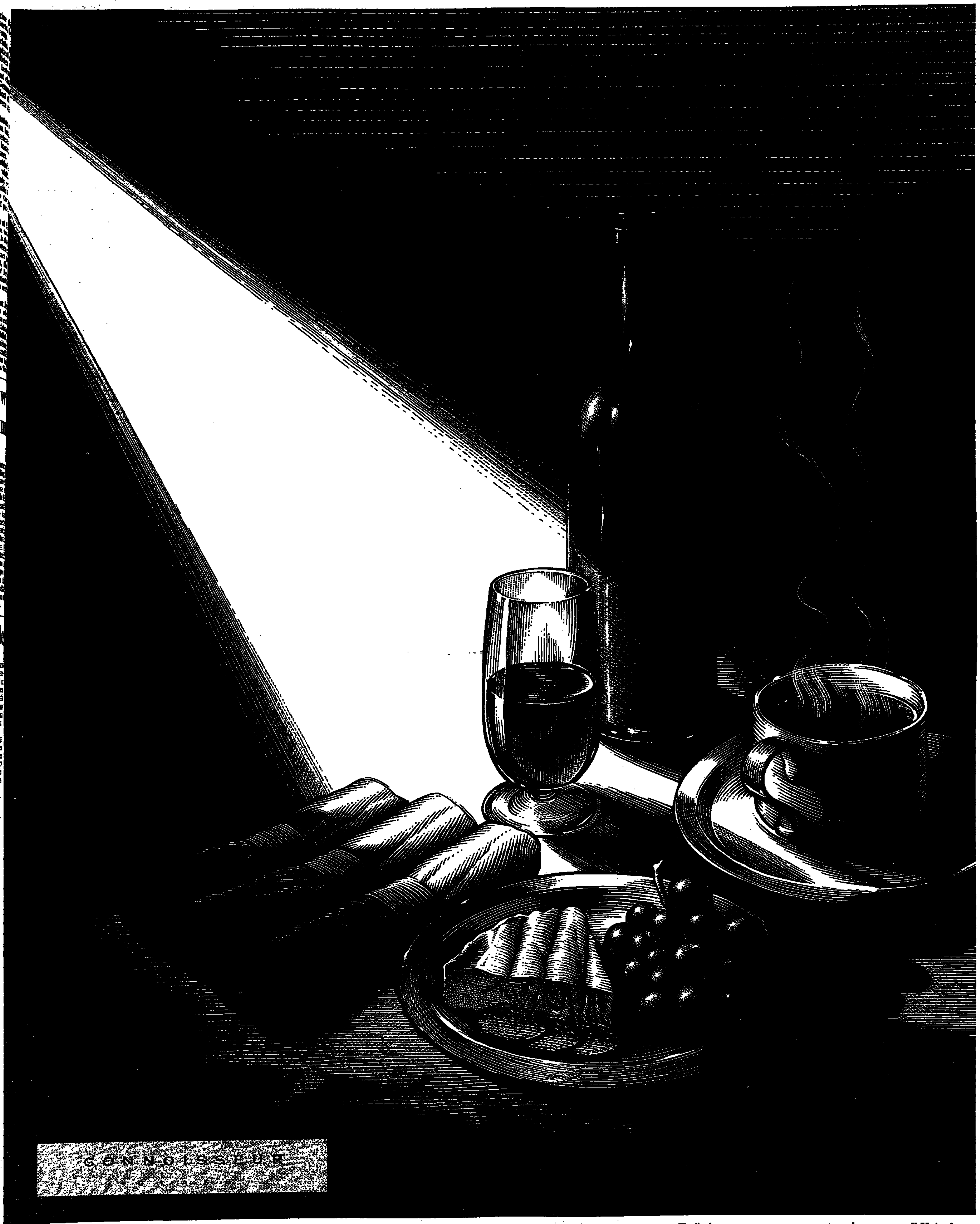

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UNITED AIRLINES

Bank of Japan urged to cut interest rates

By Robert Thomson in Tokyo

MR Eiichi Nakao, Japan's international trade and industry minister, yesterday called on the Bank of Japan to cut official interest rates to encourage domestic growth, increase the flow of imports, and slow the rapid growth of the country's trade surplus.

The Japanese government senses that trade friction could increase in tandem with the sharp rise this year in the surplus, which was a record $9.757bn for the month of September and appears set to continue its growth in the final quarter.

Mr Nakao also encouraged Japanese companies to exercise export restraint. While he said that he would not name specific companies, he is understood to have been referring to electronics companies and car makers, which are experiencing a downturn in domestic sales.

His ministry had warned companies during the past two years to be prudent in adding extra capacity, but capital spending levels remained high and many companies now faced with surplus capacity in a softening domestic market have increased their exports.

"We can all see that the surplus is getting bigger, and we must do what we can to reduce the figure," Mr Nakao said.

"We would hope that the central bank would lower official interest rates because if we can keep the domestic economy expanding, exports will not increase. We should also increase imports," he said.

Tokyo is concerned the surplus this year could be close to the 1986 record of $82.7bn, as the cumulative adjusted surplus for the first nine months reached $57bn, an increase of 31.9 per cent, and domestic economic growth is unlikely to rise significantly in the final quarter.

Japan's official discount rate (ODR) was cut by half a percentage point to 5.5 per cent on July 1, the first decrease since February 1987, but Bank of Japan officials are known to be concerned that another interest rate cut would weaken the yen. However, the Group of Seven finance ministers indicated at the weekend that the Japanese currency should be strengthened to slow the growth of the trade surplus.

PLO anger grows at peace conference exclusion

By Tony Walker in Cairo

ANGERED by its exclusion from direct involvement in a proposed Middle East peace conference, the Palestine Liberation Organisation today convenes its policy-making central council to decide whether to co-operate with US-Soviet peace efforts.

Palestinian leaders have been dismayed by what they regard as US failure to provide a face-saving formula that would enable the PLO to say that it has not been completely disregarded in preparations for the planned peace summit. The meeting of the PLO's 100-member central council coincides with the arrival in Jerusalem of Mr James Baker, the US secretary of state, on the most difficult leg of his eighth Middle East peace mission since the Gulf crisis.

The PLO, fearing a humiliating rebuff, has been seeking ways in which to insert itself into the peace process, but wary of an Israeli veto, the US is demanding that the organisation remain in the shadows.

In a statement reflecting deepening US concern that the issue of Palestinian representation may yet derail peace efforts, Mr Baker warned late on Monday that it may be some time before another chance arose to break the impasse in the Arab-Israel dispute.

While PLO leaders had seemed resigned to seeing the peace conference go ahead without their involvement, a more militant mood appears to have developed in the past 48 hours. Mr Baker was rebuffed yesterday in his efforts to secure names before arriving in Israel of possible Palestinian representatives at the proposed summit.

The PLO reportedly was asked by Jordan to supply 30-40 names, but has delayed a decision until after its central council meeting.

The US official met President Hafez al-Assad of Syria yesterday in his continuing efforts to convene the peace conference by the end of this month, as scheduled. But the issue of Palestinian representation – the actual names and identities of the participants – has clearly emerged as the main stumbling block.

Mrs Hanan Ashrawi, one of several West Bank personalities who have been negotiating with Mr Baker, visited Jordan yesterday for talks with Mr Taher al-Masri, the Jordanian prime minister on a proposed joint Jordanian-Palestinian delegation.

There was talk in Jordan last night that representatives from the occupied territories might join a PLO delegation in a meeting with Jordanian officials, thus emphasising the "unity" of Palestinians living under Israeli occupation with those in the diaspora.

Such a step would almost certainly oblige Israel to detain the West Bank representatives, and so threaten the fragile process that Mr Baker has doggedly pursued through his numerous peace missions.

Arafat mocks Israeli stance with hotline to Jerusalem

By Tony Walker

MR Yassir Arafat, chairman of the Palestine Liberation Organisation, likes to keep in touch by telephone and facsimile machine with representatives around the world, and that includes Palestinians in East Jerusalem, occupied by Israel in the 1967 war.

Interviewed last week at his Tunis headquarters by two Time magazine correspondents, Mr Arafat boasted that he telephoned Palestinian intermediaries, Mr Faisal Husseini and Mrs Hanan Ashrawi direct in Jerusalem. "Even (Israeli Premier Yitzhak) Shamir knows they are consulting me day and night by phone. I talk with them on this phone direct to Jerusalem," Mr Arafat said, gesturing to one of the phones on his desk.

"I do not need to go through the Tunisian Central switchboard. I dial direct – Zero, Zero, Zero," he added, in response to a question about relations between the PLO and Palestinian representatives from the occupied territories who are engaged in delicate negotiations with Mr James Baker, the US secretary of state.

Israel has said repeatedly that it would not negotiate with Palestinians associated with the PLO. The vexed issue of Palestinian representation remains one of the sticking points in Mr Baker's efforts to convene a Middle East conference.

Mr Arafat's boast of direct telephone contact with representatives in Jerusalem is unlikely to calm Israeli worries about the PLO's barely disguised indirect role in the peace process. Israel's right wing had demanded that both Mr Husseini and Mrs Ashrawi be questioned about reports they had attended a closed session in Algiers last month of the Palestine National Council, the Palestinian "parliament-in-exile", presided over by Mr Arafat.

The Palestinians denied to Israeli police they had broken the law, and then refused to answer further questions. They were allowed to leave Israel for meetings late last week in Washington with Mr Baker and his advisers. Mr Arafat, at his late-night session with Dean Fischer and William Dowell, the Time correspondents, received a fax message from Mr Husseini and Mrs Ashrawi after they had met Mr Baker.

"Not pleasant," exclaimed Mr Arafat after reading the message. "Baker is repeating the Israeli claims and conditions. 'No' to self-determination. Nothing concerning Jerusalem. 'No' for any participation of the PLO."

Earlier, the PLO leader had promised the correspondents that if they remained with him (the interview concluded about 4.30 am) they would witness his instant facsimile communications with the Palestinian intermediaries. "I am waiting for the results of the talks in Washington within half an hour maximum," Mr Arafat had said. "If you stay with me, you will have the results.

"They (Palestinian intermediaries) used to deliver mandates (authorised PLO statements), from me, signed by me to Mr Baker. How do I send these mandates? Through fax mail. Me, by my authority as chairman of the PLO and president of the state of Palestine. I authorise, one, two, three, four, to meet Mr Baker and to tell him the following message. And I have to protect them (Husseini and Ashrawi). Without this protection, they would never go. Because the masses would not accept it."

Mr Arafat insisted peace was not possible without PLO participation in the process. "Are the Israelis trying to cover the sun with their fingers?" he asked. "With whom are they going to make peace? With ghosts?"

Asked, if he (Mr Arafat) could deliver the Palestinians, he replied: "Yes. But suppose I accept this terminology. Who will give the orders? The PLO. None of the Palestinians inside or outside the territories can move or talk without PLO approval."

Aids 'cure' announced by big dairy company

By Clive Cookson, Science Editor

MEIJI MILK, Japan's second largest manufacturer of dairy products, yesterday announced that it had developed a substance which could kill cells infected with the virus which causes Aids and prevent it spreading inside the body.

But the international pharmaceutical industry will be highly sceptical about the substance, called M-HDA, until it has undergone clinical trials. Many other companies have discovered chemicals which give striking results in laboratory tests but fail to work in Aids patients.

Meiji Milk said it would apply to the US Food and Drug Administration to start clinical trials next spring. Even if the results are strikingly successful, it would take about five years for M-DHA to be licensed for general use.

M-HDA is a compound based on hemin and albumin, two substances derived from blood. The company says that it suppresses the virus more effectively than AZT, the leading Aids treatment made by Wellcome of the UK, and causes fewer side effects.

Although Meiji Milk is primarily a food company, its strategy is to diversify into biotechnology and pharmaceuticals.

In Harare: PV Narasimha Rao (India), Bob Hawke (Australia), Kenneth Kaunda (Zambia), John Major (Britain), Mahathir Mohamed (Malaysia), Michael Manley (Jamaica), Lynden Pindling (Bahamas), Brian Mulroney (Canada), Ibrahim Babangida (Nigeria), Goh Tok Chong (Singapore) and Emeka Anyaoku, secretary general

Pakistani unions in sell-off deal

By Farhan Bokhari in Islamabad

THE Pakistan government yesterday reached an agreement with the country's union leaders under which workers who lose their jobs at factories which are privatised will receive compensation packages.

The government is due to receive offers tomorrow from prospective purchasers of 103 factories. The sale is the largest single one of its kind since Pakistan embarked on its privatisation programme earlier this year. Labour leaders have opposed privatisation on the grounds that there could be large-scale job losses.

The agreement was signed in Islamabad by Mr Ijaz ul-Haq , the labour minister, and leaders of the APSEWAC (All Pakistan State Enterprises Workers' Action Committee); a labour coalition which represents unions at 149 public sector factories, with a membership of 50,000 workers.

Later, Mr ul-Haq told journalists that under the agreement, there would be no retrenchement of workers during the first 12 months after the sale. Workers would also be allowed to buy 10 per cent of shares in their factories. The government also agreed to extend benefits such as unemployment allowances to workers who are laid off.

In addition to the agreement, there were also signs yesterday that the government was encouraging unions to submit buy-out bids backed by workers, as another way to privatise factories without facing labour resistance.

A union leader said that at least 26 unions were planning to submit offers to buy out their own factories. While government ministers and senior officials appeared to be confident about tomorrow's sale, there were few clear signs about the expected response.

In the past, despite government backed incentives, some businessmen have been reluctant to invest, due to the growing instability in some parts of Pakistan. Some businessmen and officials say privately that recent coverage in the Pakistani press of an on-going financial scandal, with opposition backed allegations against politicians in the government, has also added to nervousness among investors.

Kano under curfew after religious riots leave seven dead

By William Keeling

A NIGHT-TIME curfew has been imposed on Kano, northern Nigeria, following two days of religious riots which have left at least seven people dead. Armed police were patrolling the streets after an estimated 12,000 Moslem youths rioted, setting fire to churches, shops and cars.

Reports from Kano, with 3m inhabitants the largest city in the mainly Moslem north of Nigeria, indicate that the riots were sparked off by the presence of Mr Reinhard Bonnke, a German Christian evangelist in the area on a missionary tour.

The protesters were reported to be angered at Mr Bonnke's tour after a similar tour by an Islamic scholar was banned by the authorities. The riots come less than a week before Nigeria's two political parties choose candidates for state elections under the programme to return the country to civilian rule.

Independent sources say the death toll from the riots may be substantially higher than those so far recorded. Newspapers reported that about 120 buildings were set on fire and that the riot had spread to the Christian Sabongari quarter of the city.

Fire fighters were reported to have been attacked by stone-throwing protesters and required the protection of armed soldiers. Troops were also helping riot police, but were yesterday reported still not to have taken full control.

Mr Bonnke was reported to be at a house in the Christian quarter, which residents blockaded against protesters with burning tyres and vehicles.

The military federal government has imposed an official news blackout on the city.

The riots are the third of a religious nature in northern Nigeria this year. In the worst incident, in April, an estimated 800 people died in clashes between Moslems and Christians in the city of Bauchi.

● Nigeria has said it would buy back debt from its commercial bank creditors at 40 per cent of face value, as part of a debt rescheduling package agreed with banks last month.

The debt package includes a variety of options for reducing and rescheduling the $5.6bn debt, including the opportunity for Nigeria to repurchase its debt at a discount to face value. The price set by Nigeria is slightly below the current market price for Nigerian debt of between 41 and 43 per cent of face value.

Major seeks more positive role for Commonwealth

By Robert Mauthner and Michael Holman in Harare

MR JOHN Major marked his first appearance as British prime minister at the Commonwealth heads of government meeting here with a firm proclamation of faith in the future role of the 50-nation organisation.

Mr Major, who yesterday attended a meeting of a 10-nation group of leaders who are drawing up recommendations on the Commonwealth's role in the next decade and beyond, sees the association as being on the point of a rebirth, according to British officials.

Unlike his predecessor, Mrs Margaret Thatcher, who tended to treat the Commonwealth as something of an irrelevance, Mr Major has made it clear that it is still one of the central pillars of British foreign policy, together with the EC and Nato.

That said, Mr Major is looking for "a compelling, clear and eye-catching" declaration at the end of the conference, which will concentrate on the need for all member countries to commit themselves to democratic government and the respect of human rights. The draft declaration which the British government has submitted to its partners is noticeably more robust than that of the Commonwealth Secretariat. It is already clear that, although it might fit in with Canada's and Australia's ideas, some other countries such as Malaysia, Singapore and a number of African members, could find it too prescriptive and interventionist.

Britain sees its task as helping its partners to make the transition from post-colonial regimes which have not always been models of "good governance" to genuine multi-party democracies. At the same time, it is anxious that the Commonwealth should exploit more fully its ease of communication through a common language to adopt a more cohesive and constructive role on the international stage.

Mr Major will also support proposals that the Commonwealth should play a more active role in international efforts to protect the environment, combat Aids and clamp down on drug-trafficking. Though the problem of South Africa is not expected to provoke the clashes which marked previous conferences, there are still differences between Britain's ideas on the dismantling of sanctions and those of many other members.

Given the progress that has been made by the South African government towards dismantling apartheid, Britain would like all sanctions, with the possible exception of the arms embargo, to be phased out as quickly as possible.

Vietnam-UK boat people accord

By Angus Foster in Hong Kong

BRITAIN and Vietnam are expected to sign an agreement in Hanoi today allowing for the mandatory repatriation of boat people camped in Hong Kong. It will not be officially announced until tomorrow.

The announcement is likely to be couched in diplomatic language to avoid phrases such as "forced repatriation" because of Vietnamese sensitivities about a possibly hostile US reaction.

But Britain and Hong Kong hope the agreement will lead eventually to a clearing of Hong Kong's camps, where more than 64,000 boat people now live in cramped conditions. Most of them have been categorised as economic migrants, who therefore do not qualify for refugee status, or are awaiting classification.

The first flight of boat people is not expected to leave before the end of this month and is likely to include a group of "double backers" now in Hong Kong for the second time. Hong Kong then hopes to speed the classification and return to Vietnam of recent arrivals, seen as least likely to object forcefully.

The agreement follows talks held last month in Hanoi when Vietnam appeared to shift towards accepting back economic migrants who do not volunteer. Vietnam had refused to take back non-volunteers since December 1989, when Hong Kong forced 51 boat people to return and ignited strong US criticism.

Britain has also pledged $5m (£2.9m) towards the second phase of the European Community's re-integration programme in Vietnam, which is designed to offer loans and training to both returning boat people and people who stayed in Vietnam and is due to run until 1994.

NZ inflation rate at 2.2%

By Terry Hall in Wellington

NEW ZEALAND'S inflation rate fell to 2.2 per cent in the year to September, its lowest level in 28 years.

This follows an all-out crusade by the Reserve Bank which operates under a special act of parliament giving it independence in monetary policy with the sole aim of securing nil to 2 per cent inflation by 1993. Latest figures show it is running well ahead of this goal, but critics say the policy is doing immense harm to the domestic economy.

The markets had expected the lower than predicted figure to encourage the bank to relax monetary policy and ease the domestic recession.

However, Mr Don Brash, the governor, acted promptly to stop a threatened sharp drop in interest rates on the money markets. He told a parliamentary select committee that he would not be adjusting monetary policy.

The consumer price index rose 0.4 per cent in the September quarter, or 2.2 per cent in the year, compared with predictions of 2.4 per cent. Inflation has fallen sharply this year, from 2.8 per cent in June and 4.5 per cent in the March quarter.

Union leader is convicted

SOUTH AFRICA'S top union leader, who is also a prominent anti-apartheid activist, was convicted yesterday of kidnapping and assaulting an undercover policeman, AP reports from Johannesburg.

Mr Jay Naidoo, the general secretary of the Congress of South African Trade Unions, and two other labour leaders were convicted in the Johannesburg magistrate's court in a case stemming from a bizarre incident on August 28, 1990. Sentences will be announced at a later hearing. Possible sentences range from probation to a life jail term.

The incident began when the union officials found a police agent just outside their Johannesburg offices. They detained him and called a news conference. With the three union leaders and dozens of journalists present, another labour official slapped the policeman in the face when he refused to answer questions.

ANC uses economic threats as a weapon against Pretoria

Policy contradictions show the battle over the future South African economy has just begun, writes Patti Waldmeir

THE African National Congress (ANC) has discovered the ultimate economic weapon against the South African government: the threat that a future ANC government would nationalise assets, default on loans and impose heavy wealth taxes on individuals.

These threats – issued by various ANC leaders over the past month, and then denied by others – have probably done as much to dissuade potential foreign investors and lenders as years of international sanctions campaigning against Pretoria. ANC economic policy has appeared, by turns, hopelessly naïve, confused, sometimes vindictive. The effect will be to delay the investment needed to create jobs for South Africa's 5.5m unemployed – not to mention prompting local residents and businessmen to seek creative new ways to export capital.

Perhaps there is method to the ANC's madness (though it is difficult to discern, with officials contradicting one another daily over basic policy positions). Certainly, the threat to default on foreign loans was made with a strategic goal in mind: alarmed at the ease of South Africa's re-entry to international capital markets – Pretoria recently raised DM400m ($235m) in a bond issue – the ANC set out to sabotage further foreign borrowing by hinting it would refuse to repay such loans once in power. ANC officials believe that access to new lending will strengthen Pretoria's hand in constitutional negotiations due to begin within months.

ANC officials argue that loans should be postponed until Pretoria agrees to share power with black groups in an interim government. The ANC will then withdraw its threat to renege – and, officials believe, the flow of lending will resume as though it had never been interrupted. The decision to issue a default threat – coupled with recent ANC statements in support of nationalisation and wealth taxes – demonstrates the naïvete of the ANC's approach to international finance. Many officials appear to believe that the ANC alone controls the tap which regulates the flow of funds to South Africa.

Attractions of an economy with a largely unskilled and expensive workforce are vastly over-estimated and they discount the fact that black Africa's record of economic mismanagement will deter investment in a black-ruled South Africa. They are content to continue behaving like economic revolutionaries, confident that the damage done can be reversed once they are in power.

Indeed, after a month of almost daily contradictory pronouncements from various officials, the ANC has created the impression that its economic policy is confused and simplistic. On one level, this is inevitable: for the ANC is not a political party, but a liberation movement whose sole unifying purpose is to oppose apartheid. With a constituency so broad, it risks alienating supporters whatever position it adopts. So policy is fudged, and – in the words of one internal critic – ANC officials "try to please one constituency in the morning and the other in the afternoon".

This confusion might not matter but for the ANC's proximity to power. The organisation wants to share economic power with Pretoria in an interim government; but it is woefully unprepared to rule. Officials indulge themselves with endless debate, but concrete policies remain distant. Meanwhile, Pretoria's attempts to restructure the economy are rejected by the ANC.

Those who know the ANC well are convinced that moderate policies will prevail in the end. Indeed, there is already evidence of moderation at high levels: Mr Cyril Ramaphosa, the secretary general, prepared a speech for a recent investment conference in Hong Kong which guarantees foreign investors against nationalisation "without fair compensation" and promises free repatriation of profits. (He was prevented by illness from delivering the speech.)

But beneath the soothing rhetoric lies a deep distrust of the capitalist system (which has certainly done little to enrich South African blacks), and of the international financial institutions which support it. One senior ANC economic official recently assured me that Pretoria's efforts to restructure the economy (with advice from the International Monetary Fund) were aimed at destroying the ANC's economic inheritance. "It's like breaking the machines in Mozambique," he said, referring to the destruction wrought by the Portuguese before leaving former colonies in southern Africa. This scenario is clearly implausible: for South Africa's whites are not about to flee, and are unlikely to destroy their own economic assets.

Recent statements of support for nationalisation and wealth taxes also reveal the ANC's strong belief in the merits of state intervention to redress the wrongs of apartheid. This, too, is scarcely surprising: many of its most impressive thinkers are communists; and the ANC can correctly argue that it was Afrikaner socialism which "uplifted" the poor Afrikaner.

The ANC's position on nationalisation remains unresolved: Mr Nelson Mandela, ANC president, has several times reiterated a 1955 ANC promise to nationalise mines, banks and "monopoly industries" – though he insists the ANC will renounce nationalisation if businessmen come up with "a better alternative." Business may find it difficult to persuade the ANC that a better alternative does indeed exist. The battle over the future South African economy has just begun.

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IMF-WORLD BANK ANNUAL MEETING

Three EC states refuse to join $1.5bn Bush fund

By Stephen Fidler in Bangkok

IMF WORLD BANK

ITALY, Germany and Britain have refused to contribute to an investment fund set up by the US under President George Bush's Enterprise for the Americas Initiative.

The three countries' refusal to join the Multilateral Investment Fund (MIF) comes in spite of appeals from heads of Latin American governments. Some of them see it as evidence of Europe's lack of interest in the region.

Japan and the US have each pledged $500m (£290.6m) to the fund, which is meant to encourage the development of the private sector in the region. Mr Bush had envisaged that Europe and Canada would provide $500m between them, taking the fund to a total $1.5bn. The US has already paid in $100m. Canada and Spain have also committed funds, as has Portugal. France has not made any commitment, though it has not refused a contribution.

The bigger Latin American countries also decided in Bangkok to contribute to the fund.

The lack of European support will not prevent the fund from getting off the ground. Formal agreement to launch it is expected in early December.

The refusal of the three countries is part of an acrimonious debate among the leading industrial countries about burden sharing – who pays to finance their joint economic and political objectives?

The US has often been accused of pursuing its own foreign policy objectives and asking others to pay for them.

A number of European governments felt particularly strongly that this was the case with Enterprise for the Americas, unveiled last year.

The Americans have frequently complained of a lack of leadership from Europe, for example over the financial problems of the Soviet Union.

Half Soviet potato crop wasted

A REPORT on Soviet food distribution published by the European Bank for Reconstruction and Development reinforces the conviction that food shortages in the Soviet Union are caused by a badly functioning distribution system, reports Stephen Fidler.

The report shows 33 per cent of all milk, 14 per cent of meat, 28 per cent of grain and 50 per cent of potatoes are lost before they get to consumers. Some 11 per cent of potatoes are lost in the harvest, 10 per cent in storage for seed, 17 per cent in storage for food and 8 per cent in processing.

The report identifies several problems: inefficiency of channels to market; over-centralisation of food storage and processing; unhygienic quality of food; and the absence of private property.

Brady seeks fresh role for private sector

The IMF and World Bank should "develop a partnership with the private sector" to elicit the expertise of businesses in helping countries to build market economies, Mr Nicholas Brady, US treasury secretary, said yesterday, reports Stephen Fidler.

Mr Brady called on the IMF and the Bank to help:

- change attitudes towards the creation of wealth;
- build basic private and public institutions, such as the development of capital markets;
- basic training, for example in professions such as cost accounting;
- give practical advice on creating a sound fiscal system;
- establish a successful legal system.

The two institutions will need to send longer missions to borrowing countries.

Brady: seeking a partnership with private sector for IMF and World Bank

Call to refine bank loan rules

By Stephen Fidler

BANK supervisers in the west are being urged to refine the rules under which banks must set aside capital against loans to foreign governments.

The rules have been attacked as too crude and producing an undesirable impact on the international banking system.

The Development Committee of the International Monetary Fund and the World Bank this week in Bangkok instructed the two organisations to examine banking supervisory practices as part of a report on the international debt strategy.

Critics say the so-called Basle Concordat discriminates against lending to all governments which are not in the 24-member Organisation for Economic Co-operation and Development. It also fails to distinguish among developing countries, and encourages overwhelmingly short-term lending to them.

The Group of 24 developing countries expressed concern this week about the issue, following representations by the Algerian government. But the issue has also been raised by rich countries.

Mr Philippe Maystadt, the Belgian finance minister, called for industrialised countries to examine whether the Basle accord could be amended so as not to unduly discourage lending to countries that have not rescheduled their debts.

Reduction of poverty becomes priority

By Peter Norman in Bangkok

THE International Monetary Fund and the World Bank yesterday placed the reduction of poverty among their highest priorities in the 1990s.

Mr Lewis Preston, in his first appearance as World Bank president at an annual meeting of the two organisations, put his Wall Street background behind him and declared that he was "personally fully committed to poverty reduction" which remained the "World Bank Group's overarching objective".

He called on the industrialised countries to increase the resources of the International Development Association, the World Bank's soft loan agency that provides finance for the poorest developing nations with annual per capita incomes of $700 (£407) or less.

Mr Preston said donor countries should aim to provide a "substantial" increase in the next three-year replenishment of IDA funds that would be higher in real terms than the SDR11.68bn (£8.7bn) provided for the three years to the end of June 1993. Discussions on the new replenishment began this week.

Mr Michel Camdessus, who was recently reappointed to head the IMF for another five years, said industrial countries should take advantage of reduced global tension and lower military spending to spend more on aid to the developing world.

Donor nations should intensify their efforts to meet the United Nations target of spending 0.7 per cent of their gross national product on development aid. They were only half way towards this goal, he said.

Both men called on developing countries to reduce their military spending, with Mr Preston pointing out that military expenditure in many third world nations "far exceeds their spending on education and health together".

Mr Camdessus proposed tighter rules for export credits for western arms sales to prevent developing nations building up substantial holdings of offensive weapons.

German banks would ride out Soviet storm

Impact on banks would be less than feared, says David Waller

GERMAN banks would appear to stand to lose a great deal should the Soviet Union sink deeper into economic crisis and become unable to service its foreign debt.

According to government statistics, the total owed to German banks increased from just over DM19bn (£6.5bn) at the end of last year to DM35bn six months later, the increase reflecting loans taken over after the reunification of the two Germanies a year ago.

At various times during the past year, senior bankers have dwelt on the mounting risks associated with these loans.

But the impact on the banking sector would be far less pronounced than implied by the headline figures. Much of the increase in exposure has been borne either directly or indirectly by the German government, and the direct risk to the banks is thought to be in the region of DM6bn to DM10bn, most of which has already been provided for.

Some DM15bn of the DM35bn was owed to agencies of the government of the former DDR and any potential liability has been inherited by the German government. Between one half to two thirds of the remaining amount is thought to be covered by Hermes, the federal trade credit insurance organisation, which would pay back 95 per cent of insured loans in the event of a Soviet default. That leaves DM6bn-DM10bn of uninsured loans on the books of the German banks.

Mr Stephen Lewis, banking analyst at Salomon Brothers, calculates that the three largest German banks – Deutsche Bank, Dresdner Bank and Commerzbank – account for one half of the total uninsured exposure. These institutions are reluctant to give details of what they are owed and to what extent they have provided against default.

But Mr Lewis estimates that Deutsche Bank is owed DM1bn-DM1.5bn not covered by insurance, while about DM1bn is owed to both Commerzbank and Dresdner. Mr Thomas Albrecht of UBS Phillips & Drew estimates a further DM300m is owed to Bayerische Vereinsbank and DM600m to Bayerische Hypotheken und Wechsel Bank, two large South German banks.

Shares in the banking sector have underperformed the German stockmarket since the attempted coup against Mr Gorbachev. The market may, however, have exaggerated the impact of potential default on banks' profits, for the reason that several of the larger banks have already made hefty provision against the possibility of not getting their money back.

Deutsche is known to have made a 75 per cent provision of its uninsured liability and Dresdner is thought to have provided against 35 per cent of the total at the end of last year and will probably increase this to about 65 per cent at the end of this year. Of the three largest German banks, Commerzbank is the only one not to have made any provision.

According to Mr Albrecht, the net exposure as a percentage of operating profits ranges from 5 per cent at Deutsche to 25 per cent at Dresdner and 53 per cent at Commerzbank. This does not appear to be substantial enough to threaten the integrity of the German banking system.

Peter Marsh adds from London: UK banks yesterday were relaxed about the repercussions of a possible restructuring later this year of the Soviet Union's $60bn external debt.

Of the total debt, the share owed directly to UK banks is only about $3bn. Of this about two thirds is backed by government guarantees such as schemes organised by the Export Credit Guarantee Department, leaving individual banks exposed only to relatively small sums, of no more than a few hundred thousand dollars each.

Among the largest creditors are the big four clearing banks – Barclays, Lloyds, NatWest and Midland.

AMERICAN NEWS

High interest rates are blamed for 'paralysis' in the economy

Business leader sees bankruptcy surge in Brazil

By Christina Lamb in Rio de Janeiro

THE leader of Brazil's most powerful business forum has launched an attack on the government, warning of a wave of bankruptcies, widespread dismissals and a "melancholic" end to the year.

In an address to senior businessmen, Mr Mario Amato, president of the São Paulo Federation of Industries, said the economy was paralysed. He blamed the government for keeping interest rates high, a policy which he said "never works in Brazil".

Businessmen were extremely worried about interest rates, he said. "They are depleting their stocks and selling property to keep their companies alive." Many were operating at only 30 per cent capacity and sending workers on collective holidays. Most employers would be unable to correct wages for inflation this month.

Mr Amato was angered by the government's return this week to price controls which he condemned as an error. "We are all losing a lot of money and the only way out is through increasing prices," he insisted.

He added the solution to the economic crisis was not high interest rates or price controls but a cut in government spending.

Mr Amato's speech was the gloomiest picture he has painted since President Fernando Collor de Mello took office in March 1990. His fears were supported by a new report from Arthur Andersen, business consultants, which predicts "a level of bankruptcy unheard of in Brazil".

The study of 400 companies in 10 sectors found most to be operating almost without working capital and with reduced stocks, leaving them with nothing to offer creditors in case of bankruptcy.

Mr Amato's attack is a blow to Mr Collor's government, which is attempting to form a social pact of businessmen, politicians and labour to find a long-term solution to rising inflation, which is now running at about 20 per cent a month.

Haitians heed ousted president's strike call

By Canute James

THE streets of Port-au-Prince, the Haitian capital, were deserted yesterday as workers staged a general strike in support of Mr Jean-Bertrand Aristide, the president overthrown and sent into exile by the army earlier this month.

Shops, offices and schools were closed after a statement by Mr Aristide was broadcast from a radio station in the neighbouring Dominican Republic. Mr Aristide, who is in Venezuela, told Haitians they should stage a general strike but that they should not confront the army or become violent.

He added that the population should try to bear the austerity of the international trade embargo imposed on the country to force the army, and the government it installed, to restore him.

While soldiers continued to patrol the capital's streets, Mr Jean-Jacques Honorat, the prime minister who was installed by the military, was having difficulty in naming a new cabinet. MPs and business leaders who have been approached have declined the prime minister's invitation to be part of the interim government which the army said would rule until fresh elections were held in three months.

Bush may accept limit on missile defences

By George Graham in Washington

THE US has asked the Soviet Union to discuss, at arms control talks in Geneva, a framework for the deployment of limited ballistic missile defences.

The Bush administration's new proposal would open the way for a limited deployment of the Strategic Defence Initiative (SDI), which the Soviet Union has complained would breach the 1972 Anti-Ballistic Missile Treaty.

President Mikhail Gorbachev cleared the way for the new US proposal two weeks ago when he agreed for the first time to discuss missile defences. President George Bush has now reciprocated by agreeing that such defences might be limited.

The US has previously refused to accept any limits on its deployment of defences against ballistic missiles.

Mr Bush has shifted the emphasis of the SDI programme on to a more limited defensive system using ground and space sensors and interceptors designed to protect only against limited or accidental missile launches, or attacks from small countries which might acquire ballistic missiles.

The Senate has agreed to provide $4.6bn (£2.67bn) this year to allow the ground-based part of the Bush programme to be deployed by 1996, although the House has cut the funding requests more vigorously.

US inventories and sales stable

US BUSINESS sales and inventories were stable in August, with manufacturers cutting stock levels but little sign of a pick-up in retail demand, writes George Graham. The Commerce Department said manufacturers' and trade inventories were estimated at $806.2bn (£468.7bn) at the end of August, virtually unchanged from the previous month but 2 per cent lower than in August 1990.

Business sales totalled $540.9bn, leaving inventories representing an unchanged 1.49 months of sales.

Realist wins Nobel prize for economics

By Michael Prowse in Washington

THE 1991 Nobel prize for economics was awarded yesterday to Prof Ronald Coase of the University of Chicago Law School, recognised as one of the most independent thinkers of his generation.

Announcing the SKr6m (£566,000) award, the Swedish Academy of Sciences said Prof Coase, 81, had achieved a "breakthrough in understanding the institutional structure of the economy".

Prof Coase has published only a handful of papers, mostly with obscure titles – such as the 1961 offering The British Post Office and the Messenger Companies. Yet he is renowned within the profession as having one of the most original intellects in economics.

Generations of students will remember him mainly for the subtle Coase Theorem, which states the allocation of "property rights" – or legal entitlements – has no bearing on economic efficiency, provided they can be freely exchanged.

But he also conducted fundamental work on the "theory of the firm", pointing out that "transactions costs" – the cost of making transactions and managing organisations – were often as important as more obvious costs, such as those of goods and services.

Prof Coase was born in Middlesex, England and produced much of his pioneering work at the London School of Economics, where he taught from 1935 to 1951. But his theories, which lie at the border of law and economics, began to achieve widespread recognition only in the 1970s and 1980s.

"It's a good choice," said Prof Richard Layard, head of the Centre for Economic Performance at LSE. "He made fundamental contributions and greatly added to the realism of economic theory."

Prof Coase's work on transactions costs began when, while still an undergraduate, he drafted a paper on The Nature of the Firm, which was eventually published in 1937. He asked why workers would voluntarily submit to direction by entrepreneurs instead of selling their own output directly in the market. Why, in short, did companies exist?

The answer, he argued, was that the bureaucratic internal organisation of a company reduces the costs of many transactions by independent individuals in the market place.

The Coase Theorem originated in his path-breaking paper The Problem of Social Cost, published in 1960. It is best understood through a practical example.

Suppose soot from a factory reduces the value of nearby houses. Economists generally believed that the party inflicting the damage should be restrained. Prof Coase argued it was important only to establish clear property rights and let the market determine the optimal level of pollution.

This would occur when the loss of utility of householders due to soot exactly balanced the cost of marginal reductions in pollution by the factory owner.

But while not influencing economic efficiency, Prof Coase agreed the allocation of property rights would influence the distribution of income. If the factory owner was not liable for pollution, householders would be poorer than otherwise as they would have to pay him to stop polluting them.

Ironically, however, Prof Coase's work on transactions costs undermines his own Coase Theorem. If there is one factory and many householders, then the distribution of property rights will influence the efficient level of soot production. If the factory owner is not liable for pollution, there will be too much soot because of costs incurred by householders in trying to organise collective action against the polluter.

Prof Coase is also significant as one of a dying breed of economists who advance their arguments in simple prose – rather than higher mathematics – and who believe economics should be relevant.

See Editorial Comment

Prof Ronald Coase: economist who advances his arguments in simple prose

Damages appeal over Pan Am blast rejected

By Nikki Tait in New York

THE US Supreme Court yesterday rejected an appeal for punitive damages against Pan Am, the US airline, by relatives of those killed in the bombing over Lockerbie, Scotland, of a Pan Am jet in 1988 and the 1986 hijacking of one of its flights in Pakistan.

The decision by the Supreme Court, the highest judicial authority in the US, will help protect international airlines from huge damage awards following terrorist action.

The case came to the Supreme Court after two judges gave conflicting rulings over whether the Warsaw Convention protected an airline from punitive damages in such situations, even if wilful misconduct was involved. A New York federal court ruled, in the case of the Lockerbie bombing, that it did; a contrasting ruling was made in the Pakistan case.

The matter went to the Appeals Court, which affirmed the former interpretation, and then to the Supreme Court.

About 150 lawsuits, seeking compensatory and punitive damages of $300m (£174.4m), were filed against Pan Am by survivors of the Lockerbie victims. Attorneys for these plaintiffs stressed that yesterday's ruling affected only the punitive damages element.

Pan Am is now in bankruptcy, and is seeking to reorganise into a smaller Miami-based carrier.

UN plan for Iraqi oil sales

THE United Nations security council's sanctions committee yesterday set up a framework which would make it possible for Iraq to pump and sell oil under strict controls, Reuter reports from New York.

Under the plan, three oil experts, called overseers, will sit at UN headquarters in New York 24 hours a day to approve or reject contracts. Diplomats said the personnel would be seconded from Norway's Saga and Statoil companies. Overseers would also be stationed at the Iraqi State Oil Marketing Organisation, which signs the contracts with purchasers, to make sure that sales conformed with UN regulations.

UN agents would monitor the pipeline between Iraq and Turkey and would have to approve any oil loaded on ships before vessels could leave terminals in Turkey. However, there has been no word from Baghdad about whether President Saddam Hussein would permit oil sales under such close scrutiny, with UN monitors supervising each step.

Austria's UN ambassador, Mr Peter Hohenfellner, the chairman of the sanctions committee, said yesterday: "We have provided a framework so that Iraq could immediately go ahead and be in a position to sell oil."

The purchase of food and other supplies is just as intricate, with UN staff having to approve each deal, submit it to the sanctions committee and then check deliveries at entry points, and if necessary, open and examine the goods.

Iraq, under a stringent trade embargo since the beginning of the Gulf War, is permitted to sell $1.6bn worth of oil over a six-month period.

All the funds are to go to a UN escrow account, with about a third designated for war reparations and UN costs for scrapping Baghdad's weapons of mass destruction. About $933m will remain for Iraq to purchase badly needed food, medical and other humanitarian supplies, under UN supervision.

Mr Hohenfellner said that Iraq's problems with Turkey, which has raised its fees on a pipeline carrying oil from northern Iraq, were not the concern of the committee and had to be negotiated between Ankara and Baghdad. But he said the committee would consider eventually allowing Iraq to pump more than the equivalent of $1.6bn in oil to cover the pipeline fees to Turkey.

FT LAW REPORTS

Convention excludes arbitrators' appointments

MARC RICH & CO AG v SOCIETA ITALIANA IMPIANTI PA
European Court of Justice (Judges: O Due, president; G F Mancini, T F O'Higgins and G C Rodriguez Iglesias, presidents of Chambers; Sir Gordon Slynn, R Joliet, F A Schockweiler, F Grevisse and M Zuleeg) July 25 1991

ARBITRATION matters are excluded in their entirety from the scope of the 1968 Jurisdiction and Judgments Convention, including litigation before national courts concerning the appointment of arbitrators, even if the existence or validity of the arbitration agreement is a preliminary issue in that litigation.

The European Court so held on a reference by the Court of Appeal in proceedings by Marc Rich & Co AG of Zug, Switzerland, against Societa Italiana Impianti PA of Genoa, Italy.

THE COURT said that on January 23 1987 Marc Rich offered to buy Iranian crude oil from Impianti. Impianti accepted, subject to conditions.

Marc Rich confirmed acceptance of the conditions and on January 28 it sent a telex setting out the terms of the contract. They included a clause headed "law and arbitration". It provided that the contract should be construed in accordance with English law and that any dispute between buyer and seller should be referred to three persons in London, whose decision would be final and binding.

The nominated vessel completed loading by February 6. On the same day Marc Rich complained that the cargo was seriously contaminated, causing it more than $7m loss.

On February 18 1988 Impianti summoned Marc Rich to appear before the Tribunale, Genoa, Italy, in an action for a declaration that it was not liable to Marc Rich. Marc Rich, relying on the existence of the arbitration clause, lodged submissions to the effect that the Italian court had no jurisdiction.

On February 29 Marc Rich commenced arbitration proceedings in London, in which Impianti refused to take part. On May 20 Marc Rich commenced High Court proceedings for appointment of an arbitrator. On May 19 the court had granted leave to serve an originating summons on Impianti in Italy.

On July 8 Impianti requested that the order granting leave be set aside. It contended that the real dispute between the parties was linked to the question whether or not the contract contained an arbitration clause. It considered that such a dispute fell within the scope of the Convention on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters 1968, and should therefore be adjudicated in Italy.

Marc Rich took the view that the dispute fell outside the Convention by virtue of article 1.

On November 5 the High Court held that the Convention did not apply, that the putative proper law of the contract was English and that it was a proper case to give leave to serve out of the jurisdiction.

On appeal the Court of Appeal decided to stay the proceedings and to refer questions to the European Court of Justice for a preliminary ruling as to whether the exception in article 1(4) of the Convention extended (a) to any litigation or judgments and, if so, (b) to litigation or judgments where the initial existence of an arbitration agreement was in issue.

The first paragraph of article 1 of the Convention provided that it was to apply in civil and commercial matters, whatever the nature of the court or tribunal. According to article 1(4) in the second paragraph, it was not to apply to "arbitration".

Impianti considered that the exclusion in article 1(4) did not apply to proceedings before national courts or to their decisions. It contended that "arbitration" in the strict sense concerned proceedings before individuals on whom the parties had conferred authority to settle the dispute.

Marc Rich supported a wide interpretation of "arbitration" to exclude completely from the scope of the Convention disputes relating to appointment of an arbitrator.

The purpose of the Convention, according to the preamble, was to implement provisions of article 220 of the EC Treaty concerning reciprocal recognition and enforcement of judgments of courts or tribunals. By article 220 member states should, "so far as is necessary", enter into negotiations with each other with a view to simplifying formalities governing reciprocal recognition and enforcement of judgments of "courts or tribunals" and of "arbitration awards".

In referring to decisions of "courts and tribunals" and to "arbitration awards", article 220 thus related to proceedings before national courts and tribunals culminating in judicial decisions, and to those commenced before private arbitrators culminating in arbitral awards.

However it did not follow that the Convention must necessarily have attributed to it a application.

Insofar as member states were called on by article 220 to enter into negotiations "so far as necessary", it was incumbent on them to determine the scope of any agreement concluded between them.

Exclusion of arbitration from the Convention was explained by the report of a group of experts set up in connection with its drafting. It said: "There are already many international agreements on arbitrations... this is why it seemed preferable to exclude arbitration".

It followed that by excluding arbitration from the scope of the Convention on the ground that it was already covered by international Conventions, the contracting parties intended to exclude arbitration in its entirety, including proceedings brought before national courts.

Appointment of an arbitrator by a national court was a measure adopted by the state as part of the process of setting arbitration proceedings in motion. Such a measure therefore came within the sphere of arbitration and was covered by the exclusion in article 1(4) of the Convention.

Impianti contended that the article 1(4) exclusion did not extend to disputes or judicial decisions concerning the existence or validity of a arbitration agreement; or where arbitration was not the principal issue in the proceedings but was merely a subsidiary or incidental issue.

It argued that if that were not so, a party could avoid application of the Convention merely by alleging the existence of an arbitration agreement.

It contended that in any event the article 1(4) exception did not apply where the existence or validity of an arbitration agreement was being disputed before different courts to which the Convention applied, regardless of whether that issue had been raised as a main or preliminary issue.

Those interpretations could not be accepted.

To determine whether a dispute fell within the Convention, reference must be made solely to the subject matter of the dispute. If by virtue of its subject matter, such as the appointment of arbitrators, a dispute fell outside the scope of the Convention, the existence of a preliminary issue which the court must resolve in order to determine the dispute could not, whatever that issue might be, justify application of the Convention.

It would also be contrary to the principle of legal certainty, which was one of the Convention's objectives, for applicability of the exclusion to vary according to the existence or otherwise of a preliminary issue.

It followed that in the present case a preliminary issue on existence or validity of the arbitration agreement did not affect the exclusion from the Convention of a dispute concerning appointment of an arbitrator.

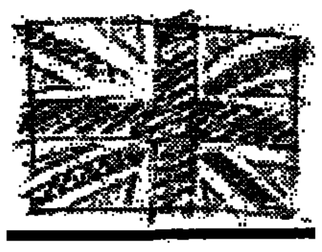
Article 1(4) meant that the exclusion extended to litigation pending before a national court concerning appointment of an arbitrator, even if the existence or validity of an arbitration agreement was a preliminary issue in that litigation.

For Marc Rich: Iain Milligan QC (Clyde & Co).
For Impianti: Peter Gross (Ince & Co).

Rachel Davies
Barrister

UK NEWS

BRITAIN IN BRIEF



UK spends 0.27% of GDP on aid

Britain spent just 0.27 per cent of gross domestic product on overseas aid in 1990, the lowest proportion in any year since the Organisation for Economic Co-operation and Development began keeping records.

Responding to a question in the House of Commons, Ms Lynda Chalker, minister for overseas development, explained this by saying that much expenditure in the first quarter of the current year would have been made in 1990 "but for things way beyond Britain's control."

She said that Britain's aid - Gross National Product ratio had remained "around" 0.3 per cent over the past five years and that planned spending for the 1991-92 financial year was 0.31 per cent of GNP.

Rover venture in recycling

A joint research venture into how best to dismantle and recycle cars has been agreed between Rover Group, the vehicles subsidiary of British Aerospace, and Bird Group, one of Europe's larger materials reclamation and recycling concerns.

Specially-adapted facilities are being set up at Bird's headquarters near Stratford-upon-Avon, Warwickshire, to undertake rapid dismantling trials on up to 100 vehicles over a six-month period.

Rover said the objective of the programme is to find ways of raising the car content which can be recycled from the current industry average of 75 per cent to nearly 100 per cent.

The venture is one of a rapidly growing number of such projects throughout the European motor and scrappage industries, as vehicle makers and legislators seek to minimise the demands made by the car on the environment and raw materials.

Pilot projects already undertaken in Germany by companies such as BMW and Volkswagen, in which the feasibility of dedicated recycling facilities linked closely to vehicle production centres were investigated, have persuaded much of the industry that the expertise of car makers and the scrappage industry working in partnership is the way forward.

Newcastle's image suffers

Image-tarnishing riots and severe cutbacks in spending have forced Newcastle City Council to scrap an advertising campaign aimed at attracting inward investment from the South.

The advertisements, some featuring traditional 'flat caps' in the form of Newcastle University mortar-boards and others celebrities like the runner Steve Cram and pop-star Sting beneath the slogan 'A city made from coal and steel. A people made of stronger stuff', were intended to change what the council believed was an unfavourable, outdated image.

The series of advertisements, part of a £300,000 a year marketing campaign devised by J. Walter Thompson for the council and launched last October, was intended to run for several more years.

Office energy initiative

John Wakeham, secretary of state for energy, will today urge industry in the UK to fight the threat of global warming by improving energy efficiency in offices and factories. He will announce a publicity campaign to improve understanding of the link between global warming and energy use as well as an appliance labelling scheme to give consumers clear energy efficiency information about all refrigerators and freezers.

'Beano' ditches efficiency plan

The Ministry of Defence has dropped an efficiency incentive scheme after award money was found to have been spent on a £129,000 "beano".

The National Audit Office, parliament's public spending watchdog, yesterday disclosed "irregular expenditure" totalling £210,000.

The money was part of £10m set aside to reward MoD management areas that achieved or surpassed their efficiency targets. This was designed to be spent on projects that would "benefit the defence community as a whole and/or contribute to future efficiency."

But money went instead on anniversary celebrations for the Royal Naval Supply and Transport Service and "out of hours" recreational and social facilities, without clearance from the MoD's finance division. The NAO, in its examination of the MoD's accounts for 1990-91, said there had been "a serious breach of basic financial controls." After the MoD told the Treasury what had happened, the £210,000 was written off as a loss.

Seelig alleges NY deception

Mr Roger Seelig alleged yesterday that L.F.Rothschild, a New York investment bank, bought Guinness shares after the close of its bid for Distillers to obtain money from Morgan Grenfell, Guinness's merchant bank, "by deception and with intent to defraud."

The allegation came during Mr Seelig's cross-examination of Mr Francois Mayer, a former senior executive at LFR.

Mr Seelig said that he asked LFR to buy 6m Guinness shares during the bid; that less than 2m were purchased before the bid closed and nearly 4m afterwards; and that LFR sold them to Morgan Grenfell at a price based on the average price of the pre-bid closure purchases, which had been higher than the average for all the purchases.

Mr Mayer said LFR had agreed to buy up to £20m of Guinness shares on the understanding that it would be protected by Morgan Grenfell against any loss.

He agreed with Mr Seelig that LFR made a £1.6m profit when it sold the shares to Morgan Grenfell.

Had he attempted to reconcile that profit with the Morgan Grenfell arrangements? Mr Seelig asked.

Mr Mayer said he had not. The profit had been arrived at "by means I cannot approve of," he said.

Mr Seelig, former Morgan Grenfell corporate finance director, and Lord Spens, former corporate finance managing director at the Henry Ansbacher merchant bank, are jointly charged with conspiring to contravene the 1958 Prevention of Fraud (Investments) Act. Mr Seelig faces another charge under that act and two of false accounting. Lord Spens faces one false accounting charge. Both plead not guilty.

Commuters face price rise

Network SouthEast commuters will be worst hit by British Rail and London Transport fare increases to take effect from January 5 next year.

Season ticket holders on Network SouthEast will face fare rises of up to 8.9 per cent, according to figures published yesterday by BR - more than double the present rate of inflation.

The Central Transport Consultative Committee, the statutory passenger watchdog, accused BR of exploiting its monopoly position by imposing the biggest fare increases on passengers least likely to have a travel alternative.

MP's challenge over Scotland

Cryptic hints that the government may be rethinking its fiercely hostile stance on devolution for Scotland provoked Mr Donald Dewar, the shadow Scottish secretary, to ask Mr John Major if change is now on the Tory agenda.

In a provocative open letter to the prime minister, Mr Dewar criticised "repeated hints of a new approach which is never defined".

He goes on to warn: "It would be quite wrong to imply that change was on its way and then renege or give a limited commitment in an election manifesto simply to look at options and nothing more."

The mounting interest in Mr Major's approach to the devolution issue stems from a recent meeting with Mr Ian Lang, the Scottish secretary, along with other party leaders in Downing street.

Job scheme for executives

Workshops to help unemployed executives and managers find work were launched by the government in the face of rising white-collar unemployment.

The scheme will cost £1.8m in its first year and 20,000 places will be available, half of which will be in London and the south-east of England where executive unemployment has risen fastest.

The workshops, which will involve two-day courses, will be open to people who have been unemployed for three months or more.

Executive Jobclubs, another scheme of which there are about 50 in the UK, are only open to people who have been unemployed for six months.

City awaits award of TV broadcasting licences

By Raymond Snoddy

NERVES in the television industry and the City showed signs of cracking last night - the eve of the announcement of the winners of new 10-year commercial broadcasting licences as rumours intensified.

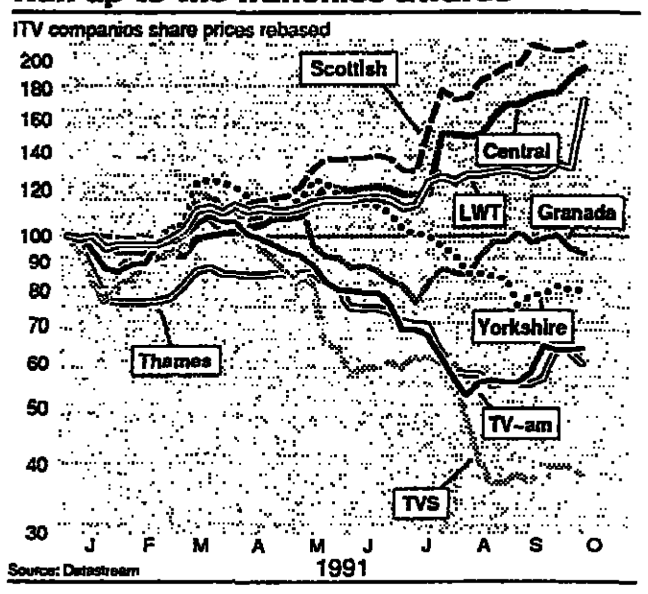
Yesterday afternoon a stockbroker got a call from "a very good source" to the effect that Mr Richard Dunn, chief executive of Thames Television had been summoned to the Independent Television Commission. People stopped trying to sell Thames shares and started buying, speculating that the ITC might be planning to set aside the highest bid in favour of Thames. Mr Dunn's "visit" to the ITC turned out to be spurious.

The Stock Exchange said that from 8.30 to 10.30 this morning, the prices on the automated quotations screens for ITV companies would be "indicative." This means brokers are not obliged to buy or sell at those prices.

Last night the best guess in the industry was still that four companies were in particular jeopardy - two because they had been outbid by rivals which had passed the quality threshold against which all bids are measured, and two because they had bid too high in a desperate attempt to ensure survival.

Carlton Communications has outbid Thames, the largest ITV company, so if Carlton passes the quality threshold, Thames will lose. Two consortia – Daybreak and Sunrise – have outbid TV-am, the commercial breakfast company. Sunrise, which groups London Weekend Television, Scottish, The Guardian and Disney, is most likely to win. TVS, in southern England, could be in jeopardy because it bid nearly £60m a year in 1993 prices to try to ensure victory with Meredian Television waiting in the wings. TVS's neighbour Television South West could be caught in the same net.

Run up to the franchise awards



Source: Datastream

Tories deny any link with BCCI

By Ralph Atkins

THE Conservative party yesterday broke its usual convention of not commenting on its finances to deny, publicly, any knowledge of donations made by the collapsed Bank of Credit and Commerce International.

Party officials were responding to a letter sent by Mr Keith Vaz, opposition Labour MP , which said BCCI staff and depositors were claiming that donations had been made by the bank or its senior executives.

They said there were no records of donations from BCCI to Conservative Central Office. The bank may have made donations to local Tory constituency associations but Central Office does not monitor such donations, the officials said.

Usually the Conservative party refuses to comment on gifts. Noticeably it has refused to deny reports that substantial amounts have been given by Mr John Latsis, a Greek shipping magnate, and Mr Asil Nadir, chairman of Polly Peck International, the collapsed conglomerate.

Speculation about donations to the Tory party from BCCI would have embarrased ministers still further as they sought to defend the action taken over the bank.

British Gas raises power station prices

By Deborah Hargreaves

BRITISH GAS raised its prices to power station customers yesterday as a way of controlling demand for gas from many of the UK's independent power generators.

The move has angered several companies planning independent power plants in the UK, which were still working out whether they could afford the old price.

British Gas has now signed up buyers for the restricted amount of gas it made available to the power generation market a month ago.

This gas was offered at lower prices following a row between British Gas, its regulator and its power station customers about high gas prices.

The price rise comes at a sensitive time for British Gas when it must decide, at a board meeting tomorrow, its response to sweeping changes recommended by the Office of Fair Trading. It was the row about prices to electricity generators which prompted the OFT to suggest wider powers to review all price changes before they are announced.

Mr James McKinnon, director general of Ofgas, the industry regulator, said he was satisfied that the price chosen by British Gas was an adequate clearing price for gas.

British Gas announced yesterday that it had signed three contracts to supply gas to AES Medway, a consortium which includes Southern Electric, with plans to build a 700 MegaWatt station in south-east England, Keadby Power – a group including Scottish Hydro-Electric planning to build a 670MW plant in Humberside – and Derwent co-generation, a project to build a 200MW combined heat and power plant in Derby.

Thames Power and a Mobil-Eastern Electricity joint venture signed up for supplies soon after the new, lower price was announced last month.

These companies have bought about 1.6bn therms of gas which British Gas allocated under the two-year price deal with supplies due to start in June 1995.

British Gas raised the price by 0.9p a therm yesterday to between 20.5p a therm and 21.2p a therm for gas which will be available in October 1996.

The company has retained a clause which sets a ceiling on the gas offered to each customer of 525m therms.

Weak factory data hits hopes of upturn

By Rachel Johnson in London and Peter Norman in Bangkok

WEAK UK industrial production data yesterday knocked hopes of a strong upturn in the second half of this year, although Mr Norman Lamont, the chancellor of the exchequer, repeated his claim that the recession in manufacturing was over.

According to August output and September inflation figures released by the Central Statistical Office, the economy remains flat, with the lack of consumer demand squeezing out inflationary pressures and forcing manufacturers to cut prices at the factory gate for the third month running.

This raised expectations that the chancellor of the exchequer would seize on the release of the retail prices index next month; when annual RPI inflation is likely to fall to around 3.5 per cent from 4.1 per cent recorded in September, to stimulate the economy with another interest rate cut.

Manufacturing output dropped an expectedly sharp 1.1 per cent in August – after gains of around 0.5 per cent in June and July – reflecting a steep drop in motor car production and a 2.7 per cent fall in engineering output.

As there was no change in output over the last three months compared with the previous three, the CSO judged that the decline in manufacturing "appears to have halted".

Compared with the same period a year earlier, output was 5¼ per cent lower in the three months to August. The recession's trough came in June, when output was 6.6 per cent lower than the same three months in 1990.

The broader measure of production, which includes energy, was also considerably worse than forecast, showing a 1.5 per cent fall on the month.

Over the last three months, production picked up by 1¼ per cent, reflecting a 3¼ per cent rise in energy output following increased activity in the North Sea. Production was declining at an annual, underlying trend rate of around 2 per cent, the CSO said.

Yesterday's producer price data confirmed that the downturn was still biting into inflation. Prices of goods at the factory gate rose by 0.1 per cent in September, taking the annual rate to 5.6 per cent, after 5.7 per cent in August. It is the lowest rate since March last year.

EDUCATION

Sevenoaks falls to the international baccalaureate

By Andrew Adonis

UK EDUCATION Secretary Mr Kenneth Clarke endlessly asserts that reform of the traditional A-level exam system in England and Wales would lead to lower standards – and undermine the education system's "gold standard". However, a small but increasing number of schools are coming off gold and taking the International Baccalaureate (IB) instead. They believe standards are rising as a result.

Sevenoaks, an independent school in London's commuterland, is one of 22 schools and colleges offering the IB as an alternative to A-levels for its 16 to 18-year-olds.

Mr Richard Barker, its headmaster, believes the IB's broad curriculum gives pupils a better grounding than three single-subject, unconnected traditional A-levels, and a third of his 400 sixth formers take the IB diploma in preference - most of them proceeding to British universities, all of which recognise the the IB as an entry qualification.

The IB was designed in the late 1960s to service mobile pupil populations based at international schools, but it has extended well beyond them. Since 1970 the number of participating institutions has risen from 15 to 400 (in 60 countries), and the number of pupils sitting IB exams has risen from 300 to 14,000 a year – 800 of them in Britain. The IB has a head office in Geneva, five regional offices (one in Cardiff), and organises an international training and conference programmes for teachers in accredited schools.

IB diploma pupils study six subjects – English, maths, a modern foreign language, a science, a humanity, and one of: art, music, Latin, Greek, computing, and a second foreign language, science or humanity. Three subjects are taken at "higher" level and three as "subsidiaries" – the latter demanding less work but carrying equal marks. Performance is graded on a one-to-seven scale, based largely on written and oral exams but with internally-assessed coursework accounting for up to 20 per cent of the total marks.

Pupils also study a "theory of knowledge" paper, submit an extended (4,000-word) essay on a subject of their choice, and have to participate in extra-curricular activities under the headings "creativity, action and service" – little problem for most British schools, with their tradition of clubs, community service and schemes like the Duke of Edinburgh award.

Final year IB pupils at Sevenoaks, currently writing their extended essays on everything from galaxies to the impact of tourists on French village life, claim to work harder than their A-level peers, but have no regrets. "The subsids are no doddle", says one, "but they stop us becoming one-track and giving up languages".

State schools are joining in too. When Kingshurst City Technology College, in Solihull, was set up two years ago, it commissioned Birmingham polytechnic to find out what was wanted by employers and universities before deciding which courses to lay on.

"A levels are dead and I am not prepared to bother with them", says Ms Valerie Bragg, the principal. "We ought to be coming up with a British bac based on the IB: its theory of knowledge paper is outstanding". That idea is not new.

Three years ago the Higginson committee recommended a broader, integrated post-16 curriculum; plans for a full-blown British bac were spelt out last year by the Institute for Public Policy Research backed broadly by the opposition Labour Party.

But underlying the IPPR's scheme is a determination to span vocational and academic subjects in a single modular course – a vastly more ambitious undertaking and one which could undermine the whole endeavour, not least given the present parlous state of Britain's vocational qualification structure.

IB's council is keen to offer more "applied" options but sees its diploma as continuing to be mainly for the academic-oriented. "There is no mission afoot to repopulate the world with the IB", says Professor Thompson, "yet the problem faced by A-level reformers is to demonstrate that an alternative can deliver the goods". The IB has demonstrated that one can.

Syndicates at Lloyd's to face independent scrutiny

By Richard Lapper

THE AFFAIRS of individual syndicates trading at Lloyd's of London, the insurance market, are to be subject to much greater independent scrutiny than ever before following the launch yesterday of a reporting service by Standard & Poor's.

The US credit rating agency is sharply critical of the management of a number of syndicates – the groups of Names that conduct underwriting at Lloyd's.

It says there is growing concern about the solvency of some syndicates following the announcement in June of the market's first losses for more than 20 years and the prospect of at least two more years of losses.

The Lloyd's Central Fund, which acts as a guarantee of last resort, may also be inadequate, "in the light of Lloyd's overall liabilities of roughly £11bn" say S & P.

Mr John Gardner, managing director of S&P's UK-based subsidiary, Insurance Solvency International, said S&P was responding to growing interest from companies buying insurance from Lloyd's. "They are saying increasingly that we must know about the individual syndicates themselves," he said.

Hitherto the solvency of individual syndicates has been inseparable from the Lloyd's market as a whole, and insurance buyers and regulators have tended to view the prospects of individual syndicates in this broader context.

Mr Gardner said: "Lloyd's is facing problems and its aura of invincibility no longer exists."

MANAGEMENT

Flying a kite over training at work

Lisa Wood on the launch of the 'Investor in People' initiative

Could the top managers of your company make a public commitment to developing all its employees so that they can contribute to achieving its business objectives?

Does the company regularly review the training and development needs of all employees?

Does it take action to train and develop individuals at the time of their recruitment and throughout their employment?

Does it evaluate its investment in training and development to assess achievement and improve future effectiveness?

If the answer to all four of these questions is positive, then your company could be eligible to become an "Investor In People".

About 25 British companies will today receive awards for an initiative which the government intends to be at the heart of its efforts to raise employer commitment to training, not because of the good of the nation but because, says the government: "Investing in people makes sound business sense".

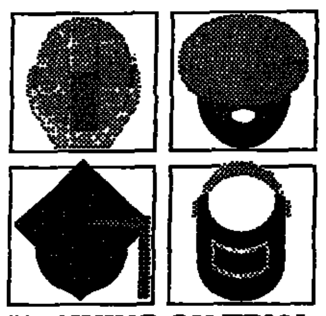
IIP as a standard is not a government wheeze. It is based on tried and tested best business practices and will be independently assessed by the network of 82 Training and Enterprise Councils (Tecs) which will inspect eligible companies over three or four days, interviewing staff from the chairman to the shop floor worker.

IIP has powerful advocates, including Sir Allen Sheppard, chairman of Grand Metropolitan and the member of the National Training Task Force who has been responsible for getting IIP off the ground.

Sir Allen says the standard is demanding. He says companies should enroll for the quality endorsement kitemark because it provides a framework for a company to judge how effectively it is developing its employees. GrandMet, itself, believes it will take about two years for all its divisions to qualify although International Distillers and Vintners (IDV), its spirits division, is likely to be among today's award winners.

The government, keen to parade success stories for its many new initiatives in training, has endorsed Confederation of British Industry targets which call for at least 50 per cent of companies employing 200 people or more to have received the IIP kitemark by 1996.

It is an ambitious target. Consultants in the field of



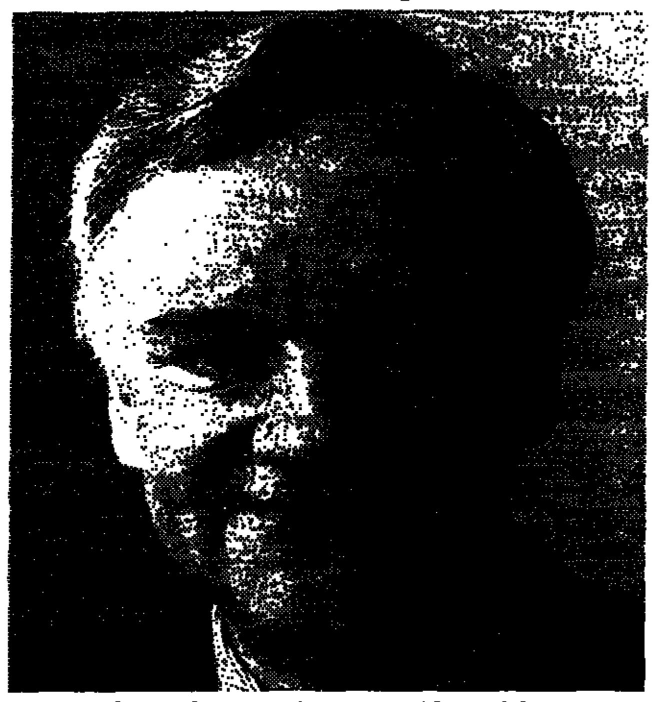
TRAINING ON TRIAL

human resource management point out that it has taken about 15 years to establish BS5750, the manufacturing standard. Some Tecs have complained over the past few months that the government has pressed them to introduce the scheme faster than they wanted.

There are several important issues that will determine the success of IIP. They include:

- Take-up. Will IIP be taken up by only a handful of companies over the next few months or will there be an avalanche of companies applying for assessment, thus establishing a strong head of steam for the kitemark?
- The extent to which employers in practice find the process of assessment useful in determining how successful they are in developing their human resources within a business plan.
- The quality of assessment by Tec employees.
- How well will the IIP fit with Tecs' strategy to engage effectively with the business community?
- Will the IIP become a political football? The Labour Party would tie IIP into its proposals for a training levy on all British companies, probably of about 0.5 per cent of payroll. Those companies which did not carry the IIP kitemark would have to pay a levy.

Sir Allen, who chairs the National Training Task Force sub-committee which has overseen the development of the standard, is confident that any problems can be successfully resolved. A particular strength



Sir Allen Sheppard: quality of assessment is crucial

of IIP, he says, is that the initiative is to be delivered by employer-led Tecs which are in a position to be more influential with their peers than civil servants delivering schemes from remote government offices.

He says that about 500 companies, including Ciba-Geigy, Bass, Rolls-Royce and Whitbread Leisure have already expressed their intention to work towards the standard. While this is a relatively small number, he believes their commitment will set the ball rolling. Sir Allen is not keen on sanctions being associated with non-involvement in the scheme. It is an opinion not shared by all involved in administering the scheme.

Philip Howard, chief executive of Essex Tec and a member of a national group which has examined the practical implications of IIP, says: "We would welcome any positive moves by any government to enhance the quality of training – whether it is a levy on training or some form of tax relief for a company that has gained the IIP standard."

Ninety-four companies have applied to Essex Tec to be assessed for IIP. "It sounds a lot but we have 30,000 companies in Essex," says Howard.

Howard is one of the many Tec chief executives who believe that Tecs have an important role to play in pump-priming companies which need assistance in working towards the standard.

He points to a recent Treasury memorandum in which David Mellor, the treasury secretary, suggests that funding Business Enterprise Training (BET) is a luxury which the government can no longer afford.

Howard, who plans to draw on the fund to help small companies work towards IIP in Essex, says: "We would very much regret it if BET were cut. It would make it much more difficult for us to help small businesses with consultancy."

According to Essex Tec and those others which have put up candidates for IIP, the response from companies has been positive.

Paul Keen, head of the business communications branch at the Department of Employment, says: "Obviously those companies that are being announced as IIP award-recipients today were clearly building upon training and development initiatives before IIP was instigated. But all were clear that IIP had added value, not least by providing a clear overall framework for focusing and sharpening the effectiveness of their training and development efforts against the needs of their businesses."

One of the most important issues the scheme must face up to, says Sir Allen, is the quality of practical assessment. Tec employees visiting companies will have to command the respect of employers and also conform to a national standard in their assessment. While assessors will have extensive guidance on how to assess a company, subjective decisions will have to be made. Some management consultants privately argue that Tecs may not have sufficient in-house skills to meet this challenge.

Keen says that Tecs are developing credible assessors through training and their achievement of vocational qualifications at a grade four level of the new National Vocational Qualifications.

Some assessors did not immediately reach this standard during the first tranche of assessments and will undergo further training. All assessors were accompanied by a qualified assessor, some of whom were management consultants.

Disquiet has been expressed by some critics of the scheme as to whether civil servants, albeit well-trained ones, will apply the standard evenly across the country. Subjective judgments will have to be made. Keen points out that moderators have been used to check that judgments were comparable. "We are committed to keeping on the moderators for the immediate future."

Tecs say that IIP is the core of their strategy to raise employer commitment to training. Whether they are fully prepared to take on that task – and what the response will be from the mass of employers – will emerge in the next few months when the initial euphoria over the first companies to gain the IIP kitemark has died down.

Previous articles in this series were published on November 28, December 3, 10 1990, January 2, 7, February 4, March 18, April 22 and June 3.

Diverse reasons for going back to basics

By Christopher Lorenz

Diversification into unrelated products, services, markets and technologies – in other words, into businesses about which a company knows next to nothing – has always been a fraught corporate strategy, and usually a foolhardy one. Not for nothing has the word "synergy" got a bad name.

This is true not only in Anglo-Saxon economies which suffer from short-term investment horizons, but also in more patient Germany and Japan - consider, for instance, the disastrous forays of AEG, Mannesmann and Volkswagen into office computers,and of Nippon Mining into other types of electronic equipment.

Hence the flood of companies on both sides of the Atlantic which, especially since the mid-1980s, has rushed "back to basics" – either by divesting, or also by re-focusing their acquisitive attentions on businesses more closely related to their "core".

Last week Scandinavian Airlines, Pilkington glass and Hawker-Siddeley, the bid-threatened UK electrical engineering group which has been over-diversified for decades, all confirmed that, to one degree or another, they were joining the trend.

Yet, as the headlines of the last few days have also shown only too clearly, there are still plenty of maverick companies which have still not learned their lesson, or are only just starting to do so.

Consider Sony's mega-buck travails in Hollywood, or British Aerospace's desperate attempts to re-justify to shareholders its investments in cars and property, which were made mainly out of financial opportunism in the late 1980s, and look little better today.

In judging the current controversy about diversification - including BAT's neat-looking but dubious combination of tobacco with Eagle Star's life insurance - shareholders and managers should take a close look at the west's wealth of experience with diversification over the past 40 years.

In the majority of cases it is a sorry record, as careful research has shown.

One of the most notable studies, a massive survey of diversification performance by US companies since 1950, was by Harvard's Michael Porter. Two of his main findings were especially telling.

First, he concluded that the most successful diversifiers, relied unusually heavily on internal start-ups rather than takeovers (just like Honda, Seiko-Epson and most other Japanese companies, plus plenty of German ones).

Second, they had also made relatively few acquisitions in fields unrelated to their existing businesses.

The "relatedness" of a set of businesses can be defined in several ways, not just by product market, geography or technology, but also by characteristics such as the relative maturity of their industry, its technology-intensity, and its average investment payback period. A set of businesses with similar characteristics tends to be suitable for "parenting" by the same company.

It is at this kind of managerial relatedness that specialist British conglomerates such as BTR and Hanson, and to some extent Williams Holdings, excel – which is what makes Hawker-Siddeley such a suitable bid target for BTR; ICI a largely inappropriate one for Hanson; and Racal a mixed prospect for Williams.

With such conclusive research in favour of relatedness, why do so many predators still indulge in unrelated acquisitions? The answer is usually blindness, delusion, or neglect.

In almost every misguided takeover, top management either starts out by expressing its blind belief in the dangerous notion of constructing a "balanced portfolio," or deludes itself (and its shareholders) into believing that there actually is some degree of synergy between the old and the new.

The acquirer also usually neglects to ask the vital question of whether it - and especially its head office - has anything to contribute in exchange for the new subsidiary's market share, access to new technology, or its (supposed) provision of anti-cyclical profits or cash flow.

When things start to turn sour a few years later, the predator's chairman can be relied upon to mutter that the failure of the acquired businesses to provide the expected takeover benefits could not have been predicted.

To some critics, BAe's newly-drafted chairman, Sir Graham Day, seemed to be saying as much 10 days ago, when he claimed that the effect of the recession on the Rover car business and the Arlington property portfolio could not have been foreseen.

Or are such critics, as BAe's fans claim, pre-judging the issue through typically British short-termism? After all, Sir Graham is promising a sharp surge in profits within another three years.

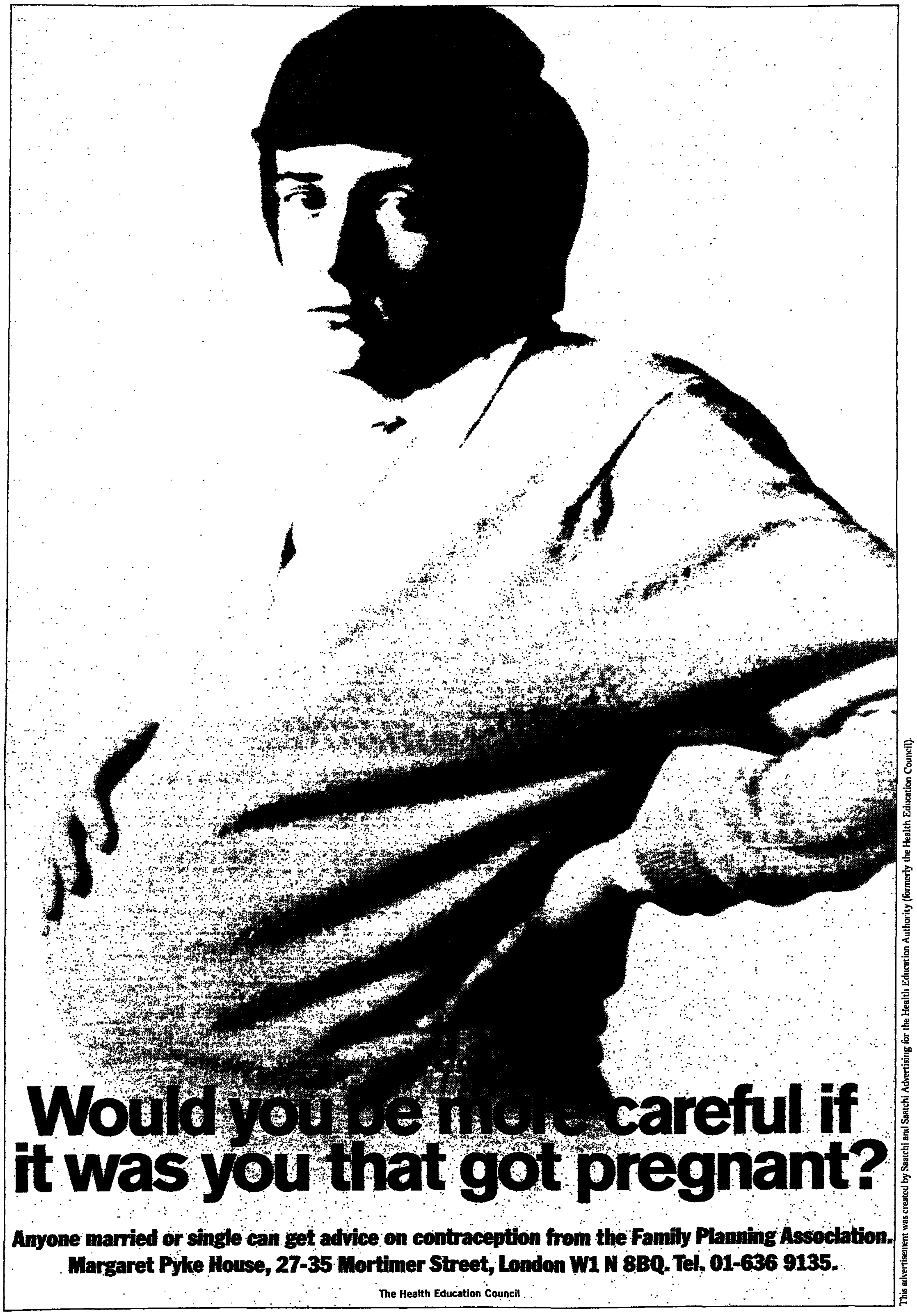
In one sense, his promise is almost as short-termist as is the disappointment of BAe's critics just three years after it became a conglomerate. Sir Graham must certainly wish he were in the shoes of Edzard Reuter, his more powerful rival at Germany's Daimler Benz, who has put together just as unrelated an aerospace-to-cars industrial conglomerate.

Reuter faces plenty of criticism, but can soldier on with his strategy so long as Daimler's biggest shareholder, Deutsche Bank, continues to support him with a lengthy time horizon.

But for Daimler, as much as for BAe, the really long-term question is whether either of them will survive in their present form against stronger Japanese and US rivals.

With many previously national or regional markets now opening up to global competition, economies of scale will be increasingly important in many industries over the next 20 years. Hence the current international rationalisation of so many industries.

This is one of the reasons why, contrary to the assertions of its predator, BTR, Hawker-Siddeley may be right in trying to sell over 60 per cent of its entire business in order to focus its skills and resources on building just three of them up to full international strength.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BUSINESS AND THE ENVIRONMENT

Ozone hole set to grow

By Clive Cookson

The loss of protective ozone in the atmosphere over Britain and northern Europe could reach 30 per cent by the year 2000, Joe Farman, discoverer of the Antarctic ozone hole, warned yesterday.

He was speaking at the official launch in London of a £14m international study of ozone destruction over the northern hemisphere. The European Arctic Stratospheric Ozone Experiment (EASOE) will involve 250 scientists from 17 countries during the coming winter and spring.

The 1985 discovery by Farman and colleagues at the British Antarctic Survey that most of the ozone over the South Pole disappeared during the southern spring shocked scientists. *Studies of the Antarctic stratosphere soon* proved that man-made chemicals – chlorofluorocarbons *(CFCs) and halons* – were responsible for this seasonal ozone hole.

Observations from satellites and the ground over the last four years show that significant amounts of ozone are also lost in the northern hemisphere during the winter and spring.

Ozone losses of 8 per cent have been measured as far south as 45 deg N, the latitude of France, during March and April. More ultraviolet radiation is therefore reaching the ground during the growing season for crops – with possibly serious implications for agriculture. And early-season sunbathers are exposed to a slightly increased risk of contracting skin cancer.

"By the end of this century we would expect to see significantly larger depletions; 20 to 30 per cent is not unlikely," said Farman, who has joined the EASOE co-ordinating unit in Cambridge.

The reason for this depressing prediction is that, even if the production of CFCs and halons is phased out during the 1990s, the residue of long-lived chlorine compounds will continue to build up in the atmosphere.

EASOE will be by far the most detailed study so far of ozone destruction over the northern hemisphere. Five types of experiment are planned.

- Ground-based instruments – including ultraviolet and infra-red spectrometers – will measure ozone, CFCs and many other trace gases in the atmosphere, from 20 locations in Europe and around the Arctic Circle.
- Large research balloons and rockets will be launched from Kiruna in northern Sweden. They will carry specialised instruments to investigate the chemistry of the upper atmosphere.
- Three aircraft will fly around the Arctic region, measuring trace chemicals in the lower atmosphere.
- "Ozonesondes" – small ozone-measuring balloons containing *electrochemical* sensors – will be launched from 20 locations in northern Europe.
- *Theoretical studies*, including computer modelling of the atmosphere at centres such as the UK Meteorological Office, will try to make sense of all the observations.

The EASOE scientists hope to learn more about the chemical and physical processes involved in the northern hemisphere – and how they differ from the more striking Antarctic ozone hole – so that they can predict more confidently the course of ozone loss in future years.

David Trippier, junior UK environment minister, said preliminary results from EASOE would influence next year's intergovernmental meeting to review the Montreal Protocol, which requires CFCs and halons to be phased out by 2000. The European Community has already decided to phase out non-essential uses of CFCs by 1997.

Trippier said the industrialised world had to "take the blame" for the ozone hole. But, he warned, "if we don't get more developing countries to sign up for the Montreal Protocol process, I don't believe we will ever repair the hole in the ozone layer."

China has promised to sign the agreement, and Trippier hopes India will do so before the end of this year.

Paradise lost

Victoria Griffith examines efforts to clean up a Brazilian river that has become one of the world's biggest cesspools

Fernando Aquino, an old-timer who has spent his entire life in São Paulo, has fond memories of the Tiete river which runs through the city.

In his youth, he would hike down from his house nearby for an occasional dip. By the time he was a teenager, the river had been transformed into a centre for water sports. Aquino was too poor to take part, but he talks with relish of the yacht races and elegant parties at the Tiete Yacht Club.

Over the past 30 years, the paradisical river of Aquino's youth has turned into one of the world's biggest cesspools. The stretch running through the industrial area of the city ceased to support any life in the 1950s. A sickly stench exudes from the Tiete's waters, which are used as an open sewer for São Paulo's domestic waste.

A drive along the river from the city's international airport reveals the extent of industrial pollution. Hundreds of companies pour untreated waste into the dull brown waters. Further along the river's banks, poor women from the nearby shanty towns haul down their daily rubbish to cast it unceremoniously into the waters.

Earlier this year, what was once little more than an eyesore for São Paulo became life-threatening. When the heavy rains of March and April hit the city, there was nowhere for the waters to go. Filled with rubbish, eroded soil, organic and inorganic waste, the river quickly overflowed. In the ensuing floods, at least 18 people died.

"The pollution of the Rio Tiete was the main culprit behind the floodings earlier this year," said Lineu Alonso, director of pollution control at Cetesb, the environmental agency of the state of São Paulo.

Over the past year, pressure has been mounting for a turnaround in the situation. The state of São Paulo has announced a \$2.6bn (£1.5bn) campaign to bring the river back to life by 1994. The Inter-American Development Bank called the river an "ecological priority".

Recently, a group of environmental activists sponsored a canoe ride up the river to draw attention to the crisis. The rowers carried protest signs and sported surgical masks to drive home their point.

Some money has already been raised. Brazil's federal government offered \$150m towards the campaign, and Luiz Antonio Fleury Filho, governor of the state of São Paulo, is counting on some international funds.

Environmental activists wear surgical masks to make their point about pollution during a protest ride on the Rio Tiete

Fleury secured almost \$500m in loan pledges from the Inter-American Development Bank during a visit to Washington this month. The governor is planning another fundraising trip, this time to London, in the spring of next year.

The focus of the clean-up is on industry. São Paulo industry accounts for just one-third of the organic waste dumped into the river, but nearly all of the inorganic waste.

Some 2,050 companies are responsible for more than 90 per cent of industrial pollution of the Tiete. Of those, just 79 are in compliance with anti-pollution regulations set by Cetesb.

Sabesp, the state sanitation agency, estimates that São Paulo industry will have to spend \$500m on the clean-up. In May, Cetesb published its list of the worst polluters, which includes multinational companies such as Rhodia, the French chemical group, and Bristol-Myers Squibb, the US-based pharmaceuticals and chemicals company.

Mention the Rio Tiete to many São Paulo companies and the shutters come down. Antarctica, the Brazilian beer group which ranks fourth on the list of the worst organic polluters, would only say it was "studying the situation".

In August, Cetesb issued a warning to the group for not presenting an anti-pollution plan. Bristol-Myers Squibb insisted that it had closed down its factory in March of this year, and that it had "no idea" why the company was named by Cetesb as the 15th worst polluter of organic materials.

Vigor, the Brazilian milk group which topped Cetesb's list of organic polluters, also believes its first place ranking was inaccurate. "We hired a private pollution-testing group, which placed our pollutants at only a fraction of what Cetesb claims they are," said Vinicius Vieira Ramos, vice-president of the group.

Even so, Ramos says Vigor is eager to comply with environmental regulations. "The trouble is that we don't have any room on our industrial site for a treatment plant," he explained. "We are trying to work out a deal with Cetesb by which we would send our waste to their nearby plant, and pay them to treat it there."

Despite reluctance to discuss the Tiete problem, most companies are being co-operative, Cetesb says. It believes that most of the polluters have enough of a profit cushion to stand the extra investment in treatment, but in one case, at least, anti-pollution demands led to a shut-down.

Brahma, the biggest beer producer in Brazil, announced that it will close its Tiete plant. Hardest hit will be the smaller companies. To ease their burden, Cetesb is encouraging the formation of treatment co-operatives. Since 1983, the World Bank has made available some \$80m in revolving credit loans to help the Rio Tiete companies set up adequate treatment facilities.

Cetesb hopes other funds will become available. Over the past few years, some improvements have been made. In a few areas, the river's waters have been siphoned off and treated. More than \$1.5bn has been spent since 1976 on sewage treatment facilities.

A priority is preventing a repetition of the murderous floods which took place earlier this year. Dozens of bulldozers dot the banks of the river, dredging out rubbish and soil in an effort to deepen the river bed.

But in view of the staggering amount of funds needed for the clean-up job, even the efforts of these gigantic machines seem like the work of ants. "The river is polluted so quickly that the bulldozers make little difference," said Jose Carlos Derisio, a director at Cetesb. "You would need to have hundreds of bulldozers working round the clock just to keep up with the problem."

The money raised for the clean-up will be spent on more sewage facilities and five new treatment plants. No one is sure where all the funds will come from, though. According to Cetesb, the pollution in the river is so bad that even if the \$2.6bn can be raised, it will be only the beginning of a longer campaign.

"This money will be used to bring the river back to a state in which it can support certain hardy fish and plant species," said Alonso. "To clean the river enough that it can once again be used for sailing will take another 20 years."

Eco-balancing tips the scales

By Peter Knight

A furious row over disposable nappies highlights the immaturity of methods used to discover if consumer products are good or bad for the environment.

The basis of the row was set by Procter & Gamble (P&G), maker of Pampers disposable nappies, when it ran a sales campaign using the conclusions of two studies that showed there was no environmental difference between disposable and re-usable nappies.

This infuriated the Women's Environmental Network (Wen), a campaigning group known for highlighting the health risks of certain sanitary products.

Wen commissioned a survey of P&G's nappy studies from independent assessors, who produced results that contradicted P&G's. Wen then complained to the UK's advertising watchdog, the Advertising Standards Authority, which is considering the evidence.

The two sides disagree on such issues as the frequency of washing (once a fortnight say Wen) to the time parents take to fold recently-laundered nappies (11 minutes say P&G).

Both sides base their arguments on a method of assessment called life-cycle analysis (LCA). Such cradle-to-grave analysis produces an inventory of how the production process and the product consumes resources (such as energy and raw materials) and what pollutants are emitted to the environment. The data are then used as a basis for making judgments about the environmental acceptability of the product.

P&G used information from two separate analyses, one by Berlin University and the other by the consultancy Arthur D. Little in the US. Wen commissioned the Landbank consultancy of the UK to do a study of P&G's data and methods of assessment.

The fact that independent consultancies can produce such diverse results underlines the complexity of life-cycle analysis and the inadequacy of the methods used.

The environmental newsletter Ends recently compared four different analyses of nappies and found that none attempted to measure the environmental impact of the various life-cycle measurements. For example, all noted that with re-usable nappies faecal matter went into the sewage system, but none measured the impact of treating it.

"LCAs tell you nothing about the environmental impacts of products. You also have to analyse the hazards and the risks. When all the data are pulled together, you can start to make reasonable and reasoned statements," says Peter Hindle, a director of P&G's UK company.

It is the nature of these statements, increasingly used to back up sales claims, that campaign groups find so unreasonable. "We attacked P&G because they were misinforming the public," says Bernadette Vallely of Wen.

Wen and P&G might be in the middle of a row, but they agree on one fundamental point: such squabbles will help to formulate better methods to work out the effect that products have on the environment. "The lengthy debates and rows are all very healthy because this is a new science," says Vallely.

Standard methods of assessing products are crucial to the development of fair environmental labelling systems. Japan, Germany and Canada have such systems and according to an OECD report, 22 other countries could run such schemes by next year. The EC is also working on a much-delayed green labelling scheme.

Current methods of life-cycle analysis do not help the labellers. A recent study of washing machines by PA, a UK consultancy, showed that much depended on the way people used the machines, not how they were made.

Hindle from P&G says that it is often impossible to compare like with like. "If you're comparing apples and oranges then you have to make a judgment."

These eco-balancing judgments have to be made if a conclusion on the environmental acceptability of a product is to be reached. And as the nappy row has shown, such decisions can bear a remarkable affinity for the organisation paying the judge.

ARTS

Lohengrin

ZURICH OPERA HOUSE

Zurich has a distinguished Wagner tradition. Wagner himself conducted performances during his Zurich exile in the early 1850s. The Opera House opened in 1891 with *Lohengrin*, and Nikisch and Richard Strauss conducted there in 1917 and 1918. Even in the late 1970s and early 1980s, there was much to learn from Ferdinand Leitner's conducting of *Lohengrin, Tristan und Isolde* and *Meistersinger*. But in the past few seasons, the house has had to make do with a series of baleful *Ring* performances.

The new *Lohengrin*, opening the first season of Alexander Pereira as Opera House director, suggests that musically at least, things are looking up again. Pereira, who comes from the Vienna Konzerthaus, has put together a cast of experienced singers, including Lucia Popp as Elsa, Anja Silja as Ortrud and Matti Salminen as King Henry.

Gösta Winbergh sang his first Lohengrin with poise and careful lyricism, his voice well matched to a theatre that does not require any forcing. Ralf Weikert's conducting was a big improvement on his *Ring*, without achieving the fusion of line and dramatic tension in Act II that made Leitner's performances incandescent.

The staging was by Bob Wilson, the latest cult director to take Europe's opera houses by storm (last season included *Parsifal* in Hamburg, *Die Zauberflöte* at the Bastille). Wilson offers a theatrical ritual for which Wagner's long, slow-moving plots provide ideal fodder.

He provides his own decor. For *Lohengrin*, this consisted of a set of simple illuminated beams, suspended vertically or horizontally in various combinations throughout the evening (in interviews before the premiere, Wilson explained the deep significance of this).

The lighting was exquisite. So were Susanne Raschig's costumes - severe full-length tunics matched to equally severe hairstyles. The swan, vaguely resembling an aeroplane tail, showed the same pared-down designer flair as the thrones for the King and Elsa.

But the character of the performance derived entirely from the intricately-rehearsed sequence of postures and hand gestures – a distant relative of Ruth Berghaus' theatrical language – which made the cast look like impersonal art objects one moment, mechanised science fiction dolls the next. Lohengrin and Telramund did not fight: they faced each other and Telramund went through the motions of lying down. In fact, the cast were never required to touch or react directly to one another.

While this cerebral ritual undoubtedly exercised a certain fascination, I found it did not add one iota to my understanding of *Lohengrin*. Wilson simply uses Wagner for his own successful theatrical clichés. Only Miss Silja and Roland Hermann's Herold, by their extreme concentration and expressive intensity, managed somehow to bridge the gap between Wilson's posturing and dramatic truthfulness.

Andrew Clark

TELEVISION

Huffing and puffing over sex, economics and the law

"Soft porn" was how the editor of the *Daily Sport* described *The Men's Room* (BBC2) on *Newsnight* last week. Fresh in Mr Peter Grimsditch's mind was the scene in episode two in which Professor Mark Carleton of the sociology faculty of London University reached for the room-menu in his Amsterdam hotel. He was naked, and considerably impeded by the attentions of Charity Walton, fellow-sociologist, who had mistaken the professor's private parts for a club sandwich.

As the newspaperman forcefully observed, what right had Jeremy Paxman to wag his finger and grind on about the lubricious entertainment on offer in *The Sport* when the BBC is screening oral sex at prime time? It was an enjoyable tussle, the more so for ending in the deflation of the over-emphatic and humourless Paxman.

Sex is, I am sure, the only reason for the success of *The Men's Room* which currently has an audience of around 6 million. Written by Laura Lamson, it is an excruciatingly feeble fable about modern marriage and the self-centred, sex-crazed, urbanites of the Thatcher Decade. In outline, it follows quite closely Ann Oakley's lamentable novel although thus far, the transition to TV makes far more of Charity's awakening sexual nature than the other theme of the novel, her discovery of feminism.

In fact, as is so often the case, the sex has distinctly more "oomph" on the printed page. In the novel, Dr Oakley at least strove manfully to be original with her sex scenes. One quite regrets nothing was done on screen to live up to the midwinter bout between Carleton and Walton on the snow in St James's Park when, hilariously, we read that the sound of rending cotton knickers "filled the park". What a pity the visit of the academic adulterers to Sally and Eric's holiday house was moved from Provence to Cornwall. It deprived us of what could have been some fancy camera-work to put across Dr Oakley's surprising botanical parallel between the priapic professor, parading in the moonlight, and the "directional stamen" of a blue hibiscus.

Very different passions: Harriet Walter and Bill Nighy in 'The Men's Room' and John Harvey-Jones, troubleshooter par excellence

What more needs saying about *The Men's Room*, beyond regretting that anyone wasted effort on turning a bad novel into television tripe? Unsurprisingly, it elicits low-powered performances from most of the cast. Bill Nighy, as the humping professor with the Heseltine hair, drones in a monotone punctuated by curious ums and ers. He neither speaks, looks, dresses, or moves, like any British academic one has ever seen. In fact, the most remarkable feature of the series is the fantastic picture it paints of academic life. Leaving aside the sex-life of senior members at London University, which may on the quiet be as rabbit-like as *The Men's Room* suggests, not one detail rings true. Dr Oakley is herself a sociologist at London University so one marvels that no one thought fit to consult her or, for that matter, anyone who ever set foot in a university faculty. Standards may have slipped in the Thatcher years, but even so, Charity's Ph.D. thesis could not be the slim wedge of paper her lover-cum-supervisor admires. And when has a professor, on being told by his wife he should expand his research base oversees, been able to ring the E.S.R.C and be given a £250,000 grant?

*

Most thought-provoking programme of the week was *Presumed Guilty* (BBC 1) in which Michael Mansfield QC denounce the failings of the current state of the British criminal justice system. Superbly presented, this was a disquieting and most valuable programme which will have expressed many lay-people's profound lack of confidence in the police and the legal process. Even apart from the Birmingham Six and the Guildford Four, Mansfield's filmed examples of recent cases of wrongful arrest and imprisonment gave his arguments all the eloquence and drama an advocate could need.

A young Asian playing snooker in a café would be in prison now for murder, had it not been for the efforts of his remarkably persistent solicitor in insisting, in the teeth of police obstruction, that an independent forensic scientist should be able to examine the scene of the crime. There is a gross imbalance in the resources open to the defence and prosecution, charges Mansfield. Similarly, every other step of the process is irredeemably flawed; investigation, interrogation (only one police station so far has installed a proper system for video-recording interrogation), the granting of bail, and the appeal system.

The problem comes with Mansfield's proposed solutions which are not simply very radical but, fairly obviously, in key respects wholly impractical. Which government is going to reverse the trend of a century and abolish the magistracy, returning instead, as in the early 19th century, to jury trials for all felonies? Imagine the backlog of cases and the chaos in prisons, features of the present scene which Mansfield himself deplores. The idea of appeals being judged by two sets of six jurors, the first to investigate, the second to judge, sounds original but cumbersome – even bizarre.

At least to a layman, Mansfield did not exactly strengthen his case by turning to the French and American system as models. Everyone has heard of the trouble US courts have in finding their twelve good men and true. The last criminologist I met said that the system of US criminal justice was held in complete disrepute. And it would take a far longer, more thorough analysis of the French system to convince me, at least, and many a Simenon reader beside, that a system which does not have at its heart the presumption of innocence can be better than our system *operating at its best*.

For all that, *Presumed Guilty* was television of a high order, well crafted and aimed unerringly to engage both intellect and emotions. Whatever the exaggerations of Mansfield's case, the underlying message was one heard rather too seldom in our "law 'n order" obsessed age. The law's first duty is to protect citizens against the wrongful arrest, deprivation of liberty, and excessive punishment. Once upon a time, the teaching of history in schools instructed the young in how that battle was waged, and some thought won, here. Who is so certain of that victory today, and what is to be done to restore that confidence?

*

Sir John Harvey-Jones must be a difficult man to have lunch with when he is in full steam. So discovered the four economists, British and American, filmed lunching in Warsaw with the combustible Sir John in the first of two enjoyable programmes, *Trouble Shooter in Eastern Europe* (BBC 2). The economists, thin and nervous-looking specimens, were members of that camp which would deal with Poland's collapsing economy by applying the lash. Sir John, the size of all four roled together, would have none of it. "Yet again, economists are playing with people's lives without really understanding the problems", he thundered.

A little unfair, Sir John. The Harvard approach advocating a macro-economic tidal wave, then leaving the strong companies to swim to the surface and keep paddling, is not in fact the only one discussed among western economists working in Poland. That quibble apart, there was something splendid and inspirational in the troubleshooter's passion and fellow-feeling for the Polish and Hungarian management he met, in week one at Krosno glass, last week at Ikarus, the Hungarian bankrupt bus manufacturer.

Of course, what is needed is to clone H-J and send him to every ailing company in the former Eastern bloc. And maybe, after watching his admirable performance, retired managers will be pestering the authorities to send them, too, east to play the role of mother-bears, licking these sickly cubs into shape. However, the most worrying aspect of the H-J programme were the points when he expressed his profound lack of confidence in the existence of consistent leadership and vision government level.

He brought out, quite brilliantly, the desperate need for expertise of all kinds and especially for accounting skills. But how can even the small, successful private companies make it when the framework in Poland and Hungary is so piecemeal, *ad hoc*, ill-understood? In Poland, one reads of a staggering 130 per cent growth in private sector jointstock companies within the last 15 months. Which sounds like a terrific success story, until one reads that they employ an average of less than two people. So how can the private sector, companies like the little paprika exporter H-J so warmly praised, carry the flaccid dead-weight of the state sector? I hope we will have updates. Nothing could make more vivid the travails of the eastern economies than the huffing, puffing, wonderfully human Harvey-Jones.

Patricia Morison

Charles Mingus's 'Epitaph' resurrected

When Charles Mingus first attempted to perform his *Epitaph* in 1962 it ended in chaos, his friend trombonist Jimmy Knepper lost a tooth for not writing fast enough and the battered score was consigned to a closet. Composer/conductor Gunther Schuller rescued it from oblivion and later this month brings an-all American, 30-plus piece orchestra to perform the work in Europe for the first time, starting in London next Monday.

It seems fitting that the musical *de profundis* left by jazz's most turbulent figure should lie undiscovered until 1985, six years after his death. Unbeknown to friends and family Charles Mingus had attempted to sum up his life and his work in a jazz symphony: an eighteen movement work lasting nearly two and a half hours and requiring 30-plus musicians were to perform it.

Mingus's *Epitaph* was found in a box at his home by musicologist Andrew Homzy who was cataloguing the bassman's work. He noticed that the bar numbers contained in a heavily annotated manuscript were measured – 1 to 3175. Mingus's widow, Sue Mingus immediately called Gunther Schuller – composer, conductor and family friend – and told him, "We're going to perform it." Ten years after Mingus's death, Schuller did perform it at the Lincoln Center in New York.

Charles Mingus: his life and work summed up in a 2½ hour jazz symphony at the Barbican next Monday

In the extraordinary and tragicomic circumstances, years earlier, when Mingus attempted to perform the *Epitaph* as it then stood in 1962, he had unfortunately omitted to explain his plans to the record company (United Artists), the musicians and the audience at New York's Town Hall. The recording date (he had not explained it as anything more) never got beyond three or four pieces before collapsing in the face of technical difficulties and poorly scripted parts. Stagehands finally put everyone out of their misery by bringing down the curtain midway through the farce in a dispute with management over pay. Ironically, when Schuller finally presented his edited and completed work at the Lincoln Center in 1989, stagehands again closed the show prematurely, this time half way through an encore.

Fixing *Epitaph* has become a life's work for Schuller, although the main job is done. "It was 95 per cent complete," he says, "It was a question of editing the score and writing all the parts." This meant months spent deciphering Mingus's idiosyncratic notation. "On a couple of movements there seemed to be no completion – five bars, say, were simply torn off. Often there were 'verbal' description as to what would happen which I could transcribe into musical notation.

"Sometimes an entire tympany part would be an octave too low and I could change that. In another piece the score was an absolute mess and made no sense and I spent two weeks resequencing and re-patching it." Most important, there was no conclusion to the entire piece and Schuller had to make up a typical Mingus impro ending.

Does the completed *Epitaph* represent jazz music's first integrated, extended work? "In *Epitaph*, Mingus achieved 50 per cent of the goal," says Schuller. "The movements have thematic similarities although some do not work in a close way. His idol was Duke Ellington who had worked on extended form – in *Black, Brown and Beige*, for example – and got as far 'suites'. Mingus himself ended up half succeeding and half failing with *Epitaph*. Had he not been discouraged by the fiasco in 1962 he would have achieved it."

Gunther Schuller and his orchestra will perform Epitaph at the Barbican Hall on 21 October and then Paris 22, Toulouse 24, Berlin 29/30, Zurich 31, then on to Spain and Italy.

Garry Booth

The Sleep of Reason

BATTERSEA ARTS CENTRE

"The sleep of reason produces monsters." The painter Francisco Goya was stone deaf for more than 30 years – from middle into old age. In this 1970 multi-media play by the Spanish dramatist Antonio Buero-Vallejo, the ageing Goya remains in his own house. He is regarded as dangerous for his political and religious views, his safety is threatened, no one else sees merit in the "Black Paintings" he is producing now, and he hears voices – though deaf to what is said to him. As he says in his longest, most pained and finest speech, "I delight in reason; and I paint witches."

The Sleep of Reason, at its best, is a powerful dramatisation of Goya's desperate isolation. When Goya is onstage – and here is the play's most striking device – we are in his world, hearing only his voice and the sounds in his mind. His friends become mute, addressing him in sign language. The only words they speak in his presence are the words or noises his imagination puts in their mouths. (We only hear them speak their own minds when he is offstage.)

As Goya teeters on the brink of madness, he starts increasingly to confuse events inside and outside his head. People, suddenly in mid-scene, behave as his fearful mind imagines they mean to behave. We see how he cannot separate truth from fancy, and we feel his anguish. We see the devilish ghouls that tease him; and when, in real life, inquisitorial volunteers burst in, torment him and rape his housekeeper/mistress Leocadia, we also see the even worse nightmare that at one point his mind makes out of it.

All of this says much about the dark world of Goya's later paintings. I congratulate Loose Change Theatre on taking up Buero-Vallejo's play and giving this, its British premiere. Buero-Vallejo is considered Spain's greatest living dramatist, and this play is considered to be his masterpiece.

This is not, however, my idea of a masterpiece. Too much of the play's first half concentrates on the "Will he" "Won't he" issue of whether Goya will consent to leave his house. The musical content of this multimedia show is some loud drumming, without much rhythmic subtlety. And Buero-Vallejo overtaxes a small company like Loose Change by demanding that slides of numerous paintings by Goya – or, sometimes, enlarged details – are projected onto screens around the performing area.

One or two key paintings are too dark to survive this process, some others look poorly focused, and several are either too magnified or too distant.

Alastair Macaulay

INTERNATIONAL ARTS GUIDE

TODAY'S EVENTS

■ BERLIN

Schauspielhaus 20.00 John Nelson conducts the Berlin Staatskapelle in Rakhmaninov's Second Symphony and Brahms' First Piano Concerto, with Alexis Weissenberg, repeated tomorrow (East Berlin 2272 261)
Philharmonie Kammermusiksaal 20.00 Jeffrey Tate conducts the Berlin Philharmonic Orchestra in Haydn's Symphony No 104, Schoenberg's Chamber Symphony No 2 and Britten's Serenade for tenor, horn and strings, with Gerd Seiffert and Robert Tear. Repeated tomorrow, Fri and Sat (West Berlin 2614 383)
Deutsche Oper 19.30 Neil Shicoff sings Rodolfo in La bohème. Tomorrow: Il trovatore (West Berlin 3410 249)

■ BONN

Oper 20.00 Dennis Russell Davies conducts Jean-Claude Riber's new production of Die Zauberflöte, with a cast led by Matthias Hölle, Paul Frey, Angela-Maria Blasi and Hellen Kwon, repeated on Sat. Sun: Youri Vamos' production of Swan Lake. Mon: Lieder recital by Rene Kollo (773667). Tomorrow in Beethovenhalle: Dennis Russell Davies conducts Manfred Trojahn's Third Symphony and Mendelssohn's Scottish Symphony, plus Prokofiev's Second Violin Concerto played by Oscar Shumsky (773666)

■ BUDAPEST

Academy of Music 19.30 Ervin Lukas conducts the Hungarian State Chorus and Symphony Orchestra. Tomorrow: Ahrenburg Youth Orchestra. Fri: Bartok Quartet.
State Opera 19.00 A Gentleman from Venice, popular opera by Ferenc Farkas (b1905), also Fri and Sat. Tomorrow and Sun: Fidelio.
Erkel Theatre 19.00 Tosca, also Sun. Tomorrow: La traviata. Fri: Il barbiere di Siviglia. Sat: Cav and Pag. All performances are sung in Hungarian.
Janos Arany Theatre Chekhov's Platonov can be seen on Fri, Sat and Sun in a guest production by De Trust Theatre Company of Amsterdam.
Merlin Jazz Club Restaurant Jazz sessions every evening with Hungarian and foreign musicians (117 9338)
Pre-booking for concerts at the Philharmonic booking office, Vorosmarty ter 1, and for opera at the central theatre booking office, Andrassy ut 18.

■ CHICAGO

Lyric Opera 19.30 Andrew Davis conducts a revival of Peter Hall's production of Le nozze di Figaro, designed by John Bury. The cast includes Samuel Ramey as Figaro, Marie McLaughlin as Susanna, Felicity Lott as the Countess, William Shimell as the Count, Frederica von Stade as Cherubino and Felicity Palmer as Marcellina. Runs till Nov 2, with next performance on Sat. Fri: Samuel Barber's Antony and Cleopatra (332 2244)

■ COLOGNE

Opernhaus 19.30 James Conlon conducts Don Giovanni, with Jake Gardner in the title role, Lyubov Kazarnovskaya as Donna Elvira and Pamela Coburn as Donna Anna, also Sat. Tomorrow and Sun: Lady Macbeth of Mtsensk. Fri: L'elisir d'amore with Leontina Vaduva as Adina (221 8400)
Schauspielhaus 19.30 Aristophanes' Lysistrate directed by Torsten Fischer. Tomorrow: Günter Krämer's new production of Les Bonnes (The Maids, 1946) by Jean Genet. Fri in the Kammerspiele: Brecht's Jungle of Cities (221 8400)

■ LONDON

Royal Festival Hall 19.30 Mariss Jansons conducts the London Philharmonic in Sibelius' First Symphony, Respighi's Feste Romane and Bruch's Violin Concerto, with Mayumi Fujikawa. Tomorrow: Vladimir Ashkenazy conducts Mendelssohn, Elgar and Strauss (071-928 8800)
Queen Elizabeth Hall 19.45 Luciano Berio conducts the London Sinfonietta in a programme of his own music, including Sequenza III, Agnus and Laborintus II. Fri: Frans Bruggen conducts Haydn and Beethoven (071-928 8800)
Coliseum 19.30 Jonathan Miller's production of The Mikado, also tomorrow and Sat. Fri: La bohème (071-836 3161)

■ MUNICH

Staatsoper 19.00 Hans-Martin Schneidt conducts Le nozze di Figaro with a cast including Lucia Popp and Ann Murray. Tomorrow: Cardillac. Fri: Peter Wright's production of Sleeping Beauty. Sat: Edita Gruberova sings the title role in Robert Carsen's production of Lucia di Lammermoor. Sun: Behrens sings Elektra (221316)
Herkulessaal der Residenz 20.00 Christoph Stepp conducts the Munich Symphony Orchestra in Beethoven's Eroica Symphony, Strauss' Don Juan and Tchaikovsky's First Piano Concerto, with Nicola Frisardi. Sat: Andrew Lloyd Webber's Requiem (299901). Tomorrow and Fri at Gasteig: Georges Prêtre conducts the Bavarian Radio Symphony Orchestra in music by Respighi and Mussorgsky/Ravel. Sat: Liza Minelli (48098 614)
Deutsches Theater 20.00 Opening night of a three week run of West Side Story, directed by Alan Johnson with the original choreography by Jerome Robbins (593427)
Kammerspiele 19.30 First night of new production of five short plays by Samuel Beckett, directed by Hans-Joachim Ruckhäberle, repeated tomorrow and Fri. Sat and Sun: Goethe's Stella directed by Thomas Langhoff (23721 328)

■ NEW YORK

MUSIC

Avery Fisher Hall 20.00 Heinrich Schiff is soloist in Shostakovich's First Cello Concerto, with the Bamberg Symphony Orchestra conducted by Christoph Eschenbach. The programme also includes Dvorak's New World Symphony. Tomorrow, Fri, Sat: Kurt Masur conducts the New York Philharmonic. Sun at 15.00: Maazel conducts the Pittsburgh Symphony. Sun at 19.30: James Galway recital (875 5030)
Metropolitan Opera 20.00 James Levine conducts Die Zauberflöte, with a cast including Dawn Upshaw, Ruth Welting, Jerry Hadley and Mikael Melbye, also Sat. Tomorrow: Un ballo in maschera (362 6000)
New York State Theater 20.00 Mark Gibson conducts Frank Corsaro's production of Madama Butterfly, with Cynthia Lawrence in the title role. Tomorrow: Die Soldaten (870 5570)

THEATRE

● Nick and Nora: Barry Bostwick and Joanna Gleason star in a musical murder mystery set in Hollywood in 1937 and based on characters created by Dashiell Hammett in The Thin Man. Book and direction by Arthur Laurents, music by Charles Strouse, lyrics by Richard Maltby. Previews daily except Mon, opening night Nov 10 (Marquis Theater, 1535 Broadway at 45th St, 382 0100).
● Return to the Forbidden Planet: written and directed by Bob Carlton, dubbed "Shakespeare's forgotten Rock and Roll masterpiece", and loosely based on The Tempest (Variety Arts Theater, Third Ave and 14th St, 239 6200).
● Rodgers and Hart: A Celebration. The best of the R and H works, directed by Michael Ramach. Runs till Oct 27 (Triangle Theater, Church of Holy Trinity, 316 E. 88th St, 860 7245).
● Ticketron answers inquiries and sells tickets more most shows on and off Broadway (246 0102)

■ PARIS

Opéra Comique 19.30 Moscow Chamber Opera opens a two-week season with Shostakovich's The Nose, repeated tomorrow, next Tues and Wed. Mozart's Bastien und Bastienne and Der Schauspieldirektor can be seen on Sat and Sun and later next week (4286 8883)
Théâtre de la Bastille 21.00 Fassung III 1989, choreographed and danced by Gerhard Bonner. Repeated tomorrow (4357 4214)
Salle Pleyel 20.30 Semyon Bychkov conducts the Orchestre de Paris in the Fifth Symphonies of Beethoven and Shostakovich. Repeated tomorrow (4563 0796)

■ VIENNA

Staatsoper 18.30 Claudio Abbado conducts the Tarkovsky production of Boris Godunov, with Robert Lloyd in the title role, repeated on Sun. Tomorrow: La bohème (51444 2960)
Musikverein 19.30 Pinchas Steinberg conducts the Austrian Radio Symphony Orchestra and Chorus in Kodaly's Te Deum and Liszt's Faust Symphony (505 8190)
Konzerthaus 19.30 Rafael Frühbeck de Burgos conducts the Vienna Symphony Orchestra in music by Takemitsu, Haydn and Bach/Schoenberg, with Richard Stolzman soloist in Mozart's Clarinet Concerto. Repeated tomorrow (7124 6860)

European Cable and Satellite Business TV

(all times CET)

MONDAY TO FRIDAY

Eurosport
0600-0630 International Business report

CNN
0730-0800 Moneyline
1230-1300 Business Morning
1330-1400 Business Day
2000-2030 World Business Today – a joint FT/CNN production with a review of business stories
2300-2330 World Business Today
0100-0130 Moneyline

Superchannel
2130-2200 (Tues) East Europe Report – weekly financial report from FTTV.
2130-2200 (Wed) FT Business Weekly - the latest round-up of business news with James Bellini and Debbie Middleton.
2130-2200 (Thurs) Talking Heads

Sky News
1200 International Business Report
1130, 1730, 2130, 0430, 0530 (Thurs) FT Business Weekly

SATURDAY

CNN
0730-0800 Moneyline
0900-0930 World Business This Week - a joint FT/CNN production
1540-1610 Moneyweek
1900-1930 World Business This Week
2110-2140 Your Money

SUNDAY

Superchannel
1800-1830 FT Business Weekly

Sky News
1330, 1630, 2030, 0030, 0230 FT Business Weekly

CNN
0710-0740 Moneyweek
1340-1400 Inside business
1540-1610 Your Money
1800-1830 World Business This Week
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Wednesday October 16 1991

Underwriters in retreat

THE TREASURY'S decision to do away with underwriters in its forthcoming sale of shares in British Telecom is a radical step in the direction of US capital market practice. Whether it marks much more than a one-off step is another matter. The BT share sale, which is expected to raise £5bn, scarcely counts as a run-of-the-mill affair; more conventional issues now in the pipeline have relied on the traditional British underwriting formula. Nor have transatlantic implants into the British securities markets over the past decade been uniformly successful. That said, it is hard to see that the BT sale will run into objections from the British taxpayer, for whom the offer incorporates very welcome cost savings.

A key feature of the form of tender now being proposed is that the pricing is fixed at the end of the offer period, as in the US, instead of the beginning. Because the institutions are only at risk for a very limited period, they will not enjoy the benefit of underwriting fees. Nor will it be necessary to offer them a significant discount to the market price.

British Telecom itself has worries about the absence of an underwriting safety net and the risk that its shares might flop in the market. Time will tell whether such fears are justified. But if the institutions have worries, they are more to do with the buoyancy of BT shares in recent months and the risk that the government will change the rules of the regulatory game once privatisation returns to the Treasury have been maximised. There is also some concern with the technicalities of the tender process.

Treasury economies

Cutting out the underwriting middleman in this way could well have some mileage in future privatisation issues. But it seems unlikely that the Treasury's economies on BT will pose a serious threat to the City's primary market club. The BT offer is a secondary issue in which an existing shareholder, the government, is offering shares to the market. The traditional objections to US-style issuing practice, which primarily relate to dilution, thus do not arise.

Nor would it necessarily be desirable for the British to abandon the practice of pre-emption rights, whereby existing shareholders are offered first bite of the cherry in any new issue, in favour of the American system. The shareholders have an equitable case, as owners of the business, to pre-emption; and in many instances where they have been persuaded to accept dilution, notably in relation to vendor placings to finance acquisitions in the 1980s, they have had good reason to regret it in the light of subsequent managerial performance.

Dominant position

Far more questionable is the operation of a fixed price underwriting club in which two or three brokers enjoy a dominant position and expect the investment institutions to underwrite everything, willy nilly, in exchange for lucrative fees. But in practice concentration among brokers is probably inevitable in a highly institutional market where there are, on some estimates, no more than 60 fund managers who really matter. Nor are the brokers as hostile to argument on individual issues as sometimes suggested. Their sensitivity tends to relate to the risk in the market as a whole. As the present spate of rights issues has demonstrated, that risk is far from negligible.

There may well be room for a more assertive attitude on the part of the institutions to whom the brokers ultimately owe their so-called placing power. A more constructive way to cut out the broking middlemen would be to encourage deep discounted rights issues. But the tax treatment of such issues remains unfavourable. Until the government chooses to grasp that fiscal nettle, the primary market will remain much as it is.

SA violence

THE South African army could be ordered to do its best to stop the political violence in the republic's townships. Yet the killings continue. The recent "peace accord", between representatives of the various black political parties and the government provides for several administrative and monitoring mechanisms to be put in place. These sections of the accord have yet to be fully implemented. When they are, and if they then fail, the responsibility for civil order will fall back on the Pretoria government.

President F.W. de Klerk argues that he is doing all he can. Long-standing antipathies between the mainly Zulu Inkatha Freedom Party and the African National Congress lie behind what at times has been open warfare. Much, perhaps most, of the recent violence may be the work of gangsters, not the shock troops of this or that political faction. Such explanations do not, however, tell the whole story. There is a widespread belief that some members of the security forces are themselves the agents of violence, although there is no evidence to the effect that they act at Pretoria's behest, and none to implicate the president himself.

Whatever the explanation, the South African government must be aware that its failure to keep the peace could become a serious obstacle in the path of its full rehabilitation as an accepted member of the international community. Private warnings to this effect have already been given by the British government; the message may soon need reinforcement.

There is no contradiction between this view and the desire, expressed by Mr John Major, to see South Africa eventually welcomed back as a member of the Commonwealth. The prime minister spoke out at the conference of Commonwealth heads of government in Harare yesterday in favour of an association that promotes democracy among its own members. South Africa is moving towards democracy, largely as a result of reforms initiated by President de Klerk. This does not mean that the world can turn a blind eye to the need to end the killings, once and for all.

Welcome award

AFTER a few years in which it looked as if the awarding committee had run out of suitable winners, the Nobel prize for economics has at last been given to an outstandingly suitable person, Professor Ronald Coase. The only criticism is that Coase, who is 81, did not receive the award earlier.

An English-born economist long connected with the University of Chicago, Professor Coase deserves to be much better known than he is, even though he does not go around setting the world to rights or trying to dazzle with technique. Indeed, he is probably the last economist to have had a theorem named after him, demonstrated simply and logically in plain English with straightforward numerical examples and illuminated by a wide knowledge of case law. Earlier on he wrote a pioneering historical critique of the BBC monopoly.

His first well-known piece of academic work asked a deceptively simply question: why are firms necessary? Why cannot people deal with each other as individuals in the market without corporate supervision? His exploration has given rise to a vast body of writings which, properly used, can point to the conditions in which small really can be beautiful.

In the "Coase theorem" itself he showed that many kinds of pollution and environmental costs could be taken care of under a suitable system of property rights. What was important was that the gainers had either to compensate the losers; or alternatively the losers could pay the gainers to take their interests into account. Contrary to what some enthusiastic American advocates of *laisser faire* asserted, Coase did not disprove the existence of social costs nor refute all case for government intervention. Everything depends on the size of the transaction costs as well as one's view of the distributional effects. But he did show that, apart from prohibitions and taxes, there was an alternative approach via property rights to improving the workings of markets.

But it is the modest, yet rigorous, way in which Professor Coase has explored important real world problems that should inspire those who carry on his work. His award might be the beginning of an antidote to the widespread impression that the main rewards in economics nowadays go to those mainly interested in exploring obscure mathematical byways for their own sake.

Juliet Sychrava says the UK industry's fate hangs on the power generators

Coal row re-ignites

How large a coal industry can or should Britain have? The question is high on the political agenda again after the leaking of documents apparently advising the government that all but 14 British Coal pits were unfit for privatisation.

The list of 14 pits, which was published in the International Coal Report newsletter last week, was purportedly drawn up by N M Rothschild, the merchant bank advising the government on British Coal's privatisation.

Hence the political attention it has received, with the shadow energy secretary Mr Frank Dobson on Monday being denied a House of Commons emergency debate on the government's "secret" proposals to close 46 coal mines. Yet the actual number of pits that will survive is still a matter of conjecture.

That does not ultimately hinge on a government blueprint, but on how much coal, at what price and over what period, British Coal can sell to the electricity industry, which takes 80 per cent of the company's coal. But no one knows what the price or tonnage will be after March 1993, when contracts between British Coal and National Power and PowerGen, the two electricity generators, expire.

"There is a great deal of talk about 'plans' for British Coal," says Mr Neil Clarke, British Coal's chairman. "But anyone who understands the contracts knows that there are three vital elements: price, tonnages, and duration. Until those are agreed there can be many evaluations, but no plans."

British Coal and the electricity generators are in the early stages of discussing future contracts. But the gap between the two sides looks difficult to bridge.

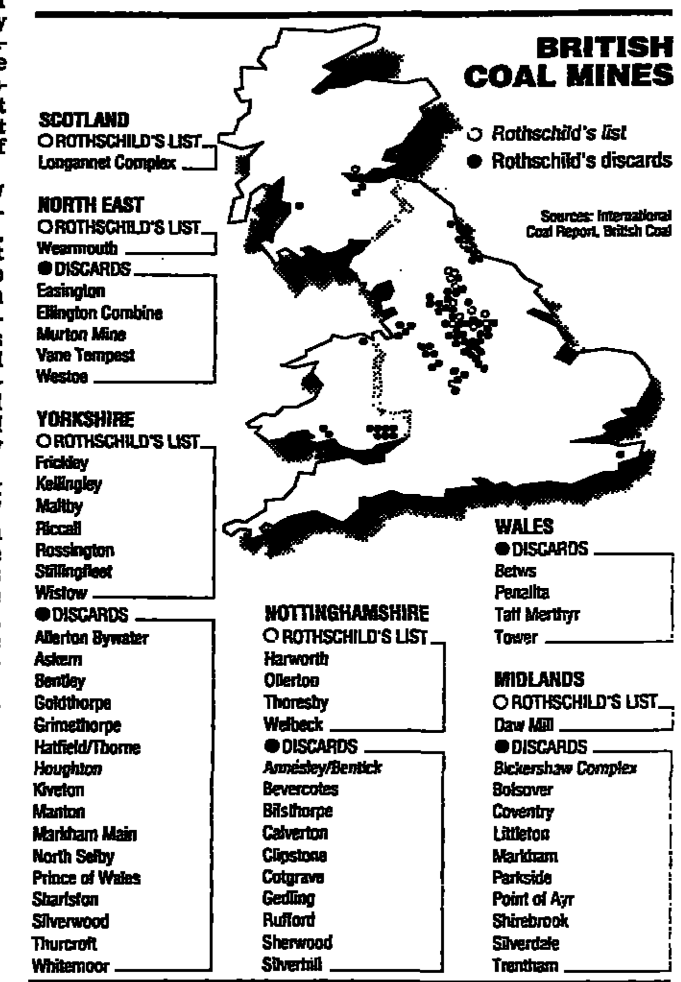
The generators have insisted they will not keep buying British coal at the present price of about £47 per tonne, which is between £11 and £17 per tonne more expensive than coal bought on the world market. British Coal points out that the generators should pay a premium for its coal because it supplies huge tonnages that no other operator can provide and there is no risk of being affected by a fluctuating exchange rate.

The company is, however, internally assessing what prices and kinds of contracts it could accept, and what the cost would be in terms of closures and cost-cutting.

British Coal has always been reticent about the cost structure of its pits. Now, the company is under more pressure to come clean, particularly as several of the UK's profitable private-sector coal companies are suggesting they could slash costs at many British Coal mines if they were allowed to take over and operate them.

The brevity of the "Rothschild" list must raise the question of whether more mines might be saved if other operators took over from British Coal.

A more important question affecting how many pits survive is the outcome of the general election. It would be understandable if British Coal were unwilling to sign contracts with the generators before then, because the Labour party is committed to "preserving coal as a national resource", though it has been vague about the number of pits it would keep open.



But the central issue for British Coal is still pricing. Independent industry observers anticipate the new contract price will ultimately be settled closer to the world market price, at between £32.50 and £37.50 per tonne. If this is the case, the number of pits that could survive would depend on how much and how quickly British Coal can cut costs and improve productivity.

Observers say costs at certain pits could be sharply reduced. Mr Richard Budge, managing director of the Nottinghamshire-based private coal company Budge Mining, believes he could cut costs by 20 per cent in some pits.

"I'm interested. I'd like to see the private sector come in. British Coal is an institution, and anyone with institutionalised habits will have a hell of a job to compete."

In Wales, Ryan International, another private-sector coal company, plans to take over a British Coal pit that closed in 1968 and run it at a profit.

Mr Crispian Hotson, the company's chief executive, believes there are opportunities for private-sector companies in certain regions. "Certain pits are attractive, operated at a lower cost, and operated differently. We would be interested ourselves."

Other pits have found interested buyers. Monktonhall, near Edinburgh, which has been out of use for two years, has already been offered for sale by British Coal, and companies including the international mining group RTZ were reported to be interested.

Some international coal companies are also reported to be interested in buying British Coal in its entirety, notably Anglo-United, the owner of the Coalite smokeless fuel business.

British Coal itself suggests that UK private-sector operators have neither the experience in deep mining nor the resources to turn loss-making pits around. How far British Coal could improve its own performance is another difficult question.

The company's output per man-shift has more than doubled over the past six years. When it announced its annual results in July, British Coal said it had held operating costs per tonne at the previous year's level, and improved productivity by 8.7 per cent.

But a confidential study of British Coal productivity carried out for the government this year by an independent coal consultant supports the view that only new management could slash pit costs in a really big way.

The report found that while British Coal employed 20,000 employees who did not work directly in the pits, companies of about half the size of British Coal in the US, Australia or South Africa employed only a couple of hundred staff above ground. Under a private-sector regime, the report estimates, productivity could triple in some British Coal mines.

At British Coal, Mr Clarke believes the company could make "considerable" improvements in the unit cost of production. But even if British Coal or its successor managed to cut costs, it could face the problem of rapidly shrinking demand from the electricity industry.

Allowing for the generators' longstanding commercial tactic of talking down their interest in British Coal's product, there is little doubt in the industry that they will cut coal consumption over the decade. This is because all the power stations being built in the UK are gas-fired, and large volumes of gas have been committed to those stations on long contracts.

Estimates of how far demand for UK coal will shrink vary, but a Commons Energy committee concluded in July that it would drop from 70m tonnes in 1990 to 50m tonnes or less by the mid-1990s.

At the moment, the size of the port facilities available to the generators means they can jointly import less than 20m tonnes, but expansion plans mean they could import up to 40m tonnes by 1995.

What the generators must bear in mind, British Coal warns, is the effect of a short-term decision to import. If they force British Coal pits to close in the next few years, they may suffer in the long term.

Another factor that will determine which pits survive is the structure of the contracts between British Coal and the generators. In the past, British Coal has been unwilling to sign contracts linked to pits or groups of pits, and has marketed its coal centrally. This allowed it to cross-subsidise underperforming pits. Now, both generators are looking for contracts linked to individual pits or groups of pits.

Such contracts would make it easier to break the company up for privatisation. But the signs are that N M Rothschild is unlikely to advise splitting British Coal on a pit-by-pit basis. Industry sources say the bank is focusing on three main options: selling the company as it is; dividing it into two, or splitting it into three parts, one of which would cover the Scottish region.

N M Rothschild's final recommendation, however, is unlikely to surface before the election. Until then, British Coal will be trying to make progress in its negotiations with the generators. Even when the report is published, advice on the number of pits that are likely to survive will not be the crucial determinant of British Coal's future; the contracts with the generators will be.

Blast from the political past

John Willman on a disappointing start to a new series of UK polemical pamphlets

It is just over two years since the radical publisher Carmen Callil launched the Chatto CounterBlasts, a series of polemical pamphlets on subjects such as public transport and housing. The authors were distinguished and included Margaret Drabble, Ruth Rendell and Fay Weldon. The aim was to offer "new perspectives, fresh ideas and differences of opinion".

Whether the CounterBlasts succeeded in generating fresh ideas was a matter for dispute. Some critics accused them of lapsing into the tired old collectivist consensus beloved of the chattering classes. But the series certainly engendered plenty of debate, and – perhaps to Chatto's surprise – it was also a commercial success.

Nineteen CounterBlasts have been published – the most recent, Against Religion by A N Wilson, appeared in June. No doubt encouraged by their success, HarperCollins tomorrow launches a rival series under the altogether more ambitious rubric of Agenda for the 21st Century. Popularly priced like the CounterBlasts at £2.99, the idea is to offer "well-known public figures the chance to set out a possible future within an area of strong personal interest".

An intriguing aim, but not one which is convincingly achieved in the first three volumes in the series, by Labour politician Tony Benn, Bruce Kent of the Campaign for Nuclear Disarmament and green guru Sara Parkin. Far from providing visions of the future, all three demonstrate a tendency to moralistic and tedious ranting about the present. Sadly they also lack the quality of writing and elegant presentation which characterised the CounterBlasts.

Tony Benn: tedious ranting

The choice of Tony Benn (A Future for Socialism) and Bruce Kent (Building the Global Village) seems particularly quixotic, since both are essentially critics of the status quo rather than visionaries. Each is associated with positions left high and dry by the course of events – Mr Benn with state socialism, Mr Kent with unilateral nuclear disarmament and pacifism. Their agendas necessarily, therefore, devote disproportionate space to revisiting old byways in a vain attempt to prove that their time will come again.

The choice of author for the third of the new pamphlets – Green Futures – seems more promising. Sara Parkin is a cogent speaker on behalf of the UK Green party, and it is likely that ecological considerations will be a powerful influence on the 21st century. Sadly her agenda suffers from a fault all too common among greens, of painting the threats to "the planet" as so immense that the only solutions are in the sphere of the impossible – always bad politics.

So Ms Parkin demands that rich countries accept that they must halt their development or that poor countries agree not to follow the growth patterns of rich countries. Emissions of carbon dioxide must be cut by 60 per cent *immediately*. Nation states should be divided into "smaller sub-national regions with a cultural and geographical affinity" (the example given of Croatia is surely a sick joke).

What is certain is that it is economic development which will make environmental stabilisation possible – just as it is prosperity which reduces the birth rate. It is, after all, the countries belonging to the Organisation for Economic Co-operation and Development which want to ban CFC gases, while developing countries such as India resent the loss of a technology to which they have only just gained access. Concern for the environment is a luxury when problems of health are life-threatening.

Wild predictions about the environment are two a penny these days, but they almost certainly disable the reader by creating the feeling that the outcome of events cannot be influenced. The likelihood is that as ecological threats become better understood, piecemeal steps will be adopted to deal with them – perhaps not as fast as some greens would like, but in time to save the human race. A radical agenda which spelt out a manageable programme to begin this process is badly needed. Sadly it is not on offer in Ms Parkin's account.

A disappointing start, therefore, to a series with a promising concept. The sub-text of the first three volumes is that the agenda for the 21st century will be filled with the unfinished business of the 20th century. It may be that the end of ideology has knocked the bottom out of existing utopias. But if there are authors capable of describing a future which is credible and attractive – and not a rehash of our own troubled times – the publishers have yet to find them.

OBSERVER

Riding high

■ Recession, what recession? It may be hard to believe, but times have apparently never been better at Britain's number one tourist attraction, Blackpool Pleasure Beach. Last Saturday was the best in the company's history, the boss is off sunning himself in Barbados, and plans are well advanced to build the most terrifying switchback ride on the planet.

"We can't afford to build a new coaster every year", says the Pleasure Beach's Helen O'Neill. But with the family-owned company's centenary coming up and the $2.9bn Euro Disneyland opening soon, something is needed to mark the occasion.

As Blackpool has always been known for its big dippers, the company has decided to build a real whopper.

It will be over three times as tall as its predecessor. The first plunge will be 65 feet higher than Nelson's column, and at speeds of up to 85mph the ride will be nearly 20 per cent faster than the Magnum XL 200 at Cedar Point, Ohio. Provided local council chiefs don't lose their nerve, it should ensure the loyalty of the Pleasure Beach's 6.5m punters for another few years.

Moreover the £5m cost compares with the £7.5m Euro Disney is spending on just its UK advertising in the first year alone. No wonder boffins from Disney's "Imagineering" department have been prowling round Blackpool. The great Walt himself spent a lot of time at the Pleasure Beach before moving into the theme park business.

Floor price

■ Official – jogging can be bad for your health. If you don't credit that, just look at what is happening in Brazil, where "Your sneakers or your life!", is developing into one of the fastest growing forms of highway robbery.

An increasing number of people in the cities of Sao Paulo and Rio de Janeiro are being held up at gunpoint for their tennis shoes – in some cases even shot dead. Not surprisingly, this has resulted in a dramatic decline in sales of high quality sports shoes.

Market forces are fighting back, however. A Brazilian footwear chain has come up with an innovative idea. Purchasers of sneakers from its Ibiza shops are presented with a certificate of insurance against theft on which is printed the motto "in case of assault stay calm, don't offer resistance".

If the sneakers are stolen within two months of purchase, the victim need only register with the police before claiming a new pair. Customers who stay in their shoes a further month before having them usurped, can claim back half the outlay. Those losing their foothold after three to six months are entitled to a quarter-cost refund.

The company is forecasting a sales increase of up to 50 per cent amongst Brazilians, who can once more jog secure in the knowledge that losing their sneakers on the hoof need not leave them soleless.

Special favour

■ South Africa's government and anti-apartheid groups have spent weeks bickering over one of the country's more sensitive economic problems – which items should be exempt from the country's new value-added tax?

Pretoria offered to zero-rate tripe and offal, along with other foods traditionally eaten by blacks; the trade unions rejected the offer as racist. But the Government is keeping quiet about one exception to the VAT rule: professional escort services. Henceforth, diplomats will pay no VAT on the services of their lady escorts.

"... *and* the ticket's scented with lavender."

Home work

■ Ernest Saunders, the former Guinness chairman who has his own experience of the UK legal system, has been back before the judges. He was spotted at the National Theatre last week engrossed in David Hare's *Murmuring Judges*, a savage critique of Britain's police, prisons and judiciary.

Mark-maker

■ Bob Gavron, the 61-year-old chairman of St Ives, may not have had the same impact on printing as his friend Paul Hamlyn had on the publishing world, but he is getting to the stage where his deserves a bit more recognition.

A well read man, who keeps his own strong views on the next Booker prize winner to himself in order not to upset his customers, he has built his printing business into one of the biggest in Europe. Headquartered in a nondescript Southwark backstreet, Gavron's company is now worth £250m and is handling bad times better than some of its more ambitious rivals.

A near-complete £130m investment programme has equipped it with state-of-the-art printing presses, the workforce has been cut by nigh a third in the past year and although earnings are down a quarter, the company is emerging from the recession with no debt on its balance sheet.

"We want to make some serious money now," says Gavron, who unlike many of his peers saw his own pay-packet slashed by almost a quarter to £75,000 last year. Having done all the printing for the Water privatisation, St Ives's 21 factories are preparing themselves for the BT II share sale. Its chief may be right in claiming that no other printer could promise to do this massive job in the time required.

Fit, and still owning 16 per cent of the company he founded in 1964, he shows no intention of retiring. But when he does he will not insist on another Gavron taking charge.

Noble Lords Hanson and Weinstock, please note.

Court jester

■ Belief in magic is now official in Milwaukee after a court judge's challenge to conjuror Travis Gardner, accused of running a gambling scam.

"If I'm convinced it's magic you're doing, I'll dismiss your case," said judge Frank J. Liska. At which Gardner bound his own hands together with a pair of thumbcuffs, freed himself without using a key, and made a red scarf vanish from one hand to reappear first in the other, then in his mouth.

"You've got a good act," said Liska, throwing out the charge. "But mine's better: I made your case disappear."

LETTERS

German influence in monetary union and the interest rate dilemma

From Mr Milton J Ezrati.

Sir, There is an important point to add to Samuel Brittan's insightful comment on European monetary integration (Economic Viewpoint, October 10). Monetary union effectively ties the monetary policy of every nation in the Community to that of the dominant central bank, which right now is the Bundesbank. But without a similarly integrated political system for controlling that bank, Europe has no means to ensure a general European policy should German interests diverge from those of the larger Community.

At the moment, Bundesbank policy might suit both Germany and the rest of Europe. This, of course, is debatable. But whatever can be said for the moment, it strains the imagination to consider that German monetary policy will always suit Europe as a whole. German and general European interests will not always coincide. Yet it is on just such a consideration that the present approach to monetary integration counts.

Better than counting on an endless coincidence of interests or simply German goodwill, Europe needs to safeguard its interests by moving away from the Bundesbank toward a more generally European institution, perhaps a kind of European Federal Reserve System that is of the entire Community, is controlled by the Community as a whole, and has none of the implicit national bias that a single nation's central bank can never completely avoid. Only when such a system, or something like it, controls monetary policy can Europe have a monetary integration instead of a follow-the-leader approach.

Milton J Ezrati,
Nomura Capital Management,
180 Maiden Lane,
Suite 2903,
New York NY 10038

From Mr Alan Abel.

Sir, Samuel Brittan's Economic Viewpoint perhaps rightly credits Nigel Lawson for being the political *avant-garde* for ERM membership.

As the then chancellor of the exchequer, however, Lawson also deserves the blame for his ill-timed shadowing of the ERM when, by attempting to cap sterling at DM3.00 to the pound, he injected more liquidity into a system that had already been well-primed following the October 1987 stock-market crash.

It was this folly, rather than courage, which subsequently forced a rise in base rates to 15 per cent and laid the foundation for the inflation and recession that has followed.

The government can now claim credit for the gradual elimination of inflation, which was caused by these initiatives, but if relief from the current high real interest rates is not felt soon, it will also be credited (blamed) for the elimination of many businesses and jobs. The dilemma is how to accomplish interest rate cuts with a much-improved inflation rate now that Britain is part of the ERM straitjacket and hostage to German monetary policy.

Alan Abel,
Via Peri 23,
Lugano, Switzerland

Positive future for majority of independent financial advisers

From Mr Jack Philp.

Sir, It is to be hoped that forecasts of the death of the independent financial adviser (IFA) have – like Mark Twain's – been greatly exaggerated.

Certainly, the Financial Services Act (FSA) has in some respects achieved results contrary to those intended. Consumer choice has been narrowed, rather than extended.

But if my company's experience is at all typical, there is and will continue to be a substantial role for the IFA to play in the related fields of life assurance, pensions and investment advice.

At the outset of the Financial Services Act, G A Life foresaw the need to broaden its distribution channels, both to seize new business opportunities and to protect against predicted erosion of its IFA customer base.

Not without unease among some IFAs, we took steps as varied as the creation of a joint venture with National & Provincial; ties with the Cheshire, Newcastle, Derbyshire, Leeds & Holbeck and Ipswich building societies; and of course sales development activities with General Accident's chain of estate agents.

The result of this multi-channel distribution development was that G A Life's single-premium business tripled in the first half of 1991. And in a market that's as tough as any other in these times, we believe we have gained and are gaining market share.

Yet none of this happened at the expense of those IFAs who nominate our products under the provisions of "best advice".

When the FSA became law, G A Life drew some 60 per cent of its business from IFAs. Today the ratio is just over 70 per cent – despite all our new distribution channels – and it continues to edge upwards.

While agreeing wholeheartedly with recent correspondents bemoaning the threat to independent advice, I believe the majority of IFAs have a more positive future than they may fear or realise.

Jack Philp,
general manager,
G A Life,
2 Rougier Street, York

When successful nepotism should come as no surprise

From Capt D. Bromley-Martin.

My attention was drawn to a fleeting reference to my father in Barry Riley's review of David Kynaston's "Cazenove Co" ("Blue-blood mystique", October 7). He seemed surprised that quality (in the firm's leadership) should have been maintained by a "thoroughly nepotistic" policy of recruitment.

But this suggestion is, to begin with, unjustified. "Nepotism" means "favouritism to relatives" and, as Riley shows by his earlier reference to Claud Seracold and Charles Micklem and as is borne out by the list of partners, the Cazenove family did not and does not dominate.

Even so, there should be no surprise at nepotistic success in this field since, properly applied (as seems to have been the case with Cazenoves), it usually produces by far the best results. In some spheres, such as public companies and the public services, it may be necessary to adopt the Gilbertian policy of "competitive examination", which, as most of us can remember, is capable of disastrous results.

But Cazenoves are luckier. They were founded by two brothers-in-law as a *private* partnership. When they needed new partners, what better source of supply than from the ranks of those they knew best – their families and friends? That a future senior partner was the son of a cousin of one of the firm's business associates is not in the least surprising but, indeed, very fortunate. If the present senior partners were recruited by cousins of their respective mothers – and I think that the book is silent on this point – then it reflects no more than credit on their mothers' social contacts and on the use to which the firm was able to put them.

I suspect that the policy continues today, with evident success. There is even flexibility in the system, as shown by Riley's other example. Mr Micklem's 1946 view of Mr David Cazenove did not prevent a 20-year stint as partner by the latter.

D Bromley-Martin,
3 Tuffs Hard,
Bosham Hoe,
Chichester,
Sussex P018 8ET

Tax-funded programme could reduce damage caused by CFCs

From Mr Tom Falvey.

Sir, Perhaps the second greatest danger of our apocalyptic age is the accelerating erosion of Earth's protective ozone layer, the cosmic condom that shields us from lethal ultraviolet radiation. All of our efforts to save the whales, the rain forests, or ourselves will be futile if we allow our planet to be microwaved at ever increasing levels.

Most ozone destruction is caused by chlorofluorocarbons (CFCs) in our refrigerators and air conditioning systems. Leakage of such CFCs could be greatly reduced if the government would buy back these coolants at an attractive rate when the units are discarded. This programme could be paid for by a tax on the lucrative profits of CFC production (which should be phased out as soon as possible).

Since one molecule of CFC can destroy up to 100,000 molecules of ozone before breaking down, every ounce of CFCs recovered would save three tons of ozone. With the stakes so high, and the cost/benefit ratio so impressive, it would be criminally negligent not to implement this measure.

Tom Falvey,
3220 Sacramento Street,
San Francisco, California

Fax service

LETTERS may be faxed on 071-873 5938. They should be clearly typed and not hand-written. Please set fax machine for fine resolution.

Origins of the 'pentop' computer technology

From J L T Davies.

Sir, It is perhaps worth recalling that the technology behind the "pentop" computer which you write about ("Technology: Pen poised to make its mark" (October 4), was first developed in the UK by the National Physical Laboratory and commercialised by Quest Automation in the late 1970s.

The Micropad made by Quest was a remarkable device whereby data, hand-written on to an ordinary sheet of paper using a normal pencil, was captured in a machine-readable form. In this way a hard copy version of the data was created automatically and the need for a special stylus was avoided.

Unfortunately, Quest never pursued this activity but I am sure that there are other companies besides WBMS in the UK which are still successfully using these devices for data input.

J L T Davies,
general manager,
World Bureau of Metal Statistics,
27a High Street,
Ware,
Herts

PERSONAL VIEW

Lessons that Brazil can learn from Mexico

By Rudi Dornbusch

When Brazil's President Fernando Collor de Mello took office a year and a half ago he promised to kill the tiger of inflation, clean up government, privatise one company a day, and make Brazil part of the first world. None of this has happened ... the tiger is loose, corruption stands at an all-time high, privatisation is bogged down and Brazil sinks steadily deeper into third world status. Mr Collor needs to assess the turn for the worse that he has visited on his country; lessons on how to do better can be drawn from Mexico.

Why Mexico? Because no other troubled country has done more things right in the economic area in the past decade and no country shows as spectacular a pay-off. The lessons from Mexico come under four headings: stabilisation, external debt, restructuring, and governance. The overall message is this: quick fixes do not last; reconstruction takes time and commitment.

Stabilisation: in the mid-80s, Mexico's government set out to reduce inflation to the levels of 1955-80, when it averaged less than 6 per cent a year. The budget deficit was reduced from 10 per cent of GNP to nothing. An incomes policy package was used to make the transition to moderate inflation. The last step, likely soon, is the move to a fixed exchange rate with the US.

Budget control was achieved by cuts in public sector investment, privatisation or closing of enterprises with deficits, elimination of consumer subsidies and supply-side tax reform – a widening of the tax base, simplification of the tax structure and rates set at US levels. Jail sentences for tax fraud became part of the culture.

The administration of President Carlos Salinas de Gortari in Mexico, made inflation Public Enemy Number One. A broad incomes policy agreement was negotiated, which provided for wage rules, price agreements for a basic basket of consumer goods, arm twisting to control private-sector price increases, and a pre-announced exchange rate policy of depreciation equal to a steady 1 peso a day. Inflation was brought down from nearly 200 per cent (over 12 months) to about 20 per cent at present.

Lesson: incomes policy works, but only in a context of fiscal restraint and an exchange rate policy that does not allow overvaluation to become severe.

External debt: the Mexican approach to debt recognised that creditors cannot afford debtors who get debt reductions but do not help to make the process look good. A good debt settlement must instil confidence that the remaining debt will be paid, and it must put debt service at a plausible level on automatic pilot.

The Brady Plan did exactly that. Mexican companies now borrow in the New York market and they issue stock on the New York Stock Exchange while direct investment inflows easily finance interest payments and trade deficits.

Lesson: stop politicising debt. Recognise the need to make peace with the world capital market. Set a realistic target, stand firm (quietly), make a deal, follow the deal.

Restructuring: the Mexican economy has been transformed over the past decade on three fronts – privatisation, deregulation, and trade liberalisation. In 1982, 1,156 Mexican firms were in the public sector. By 1990 there were only 280 left.

Privatisation was left to professionals; workers were given an important role in the restructuring dialogue; and the political rhetoric was adept – privatisation was to provide social spending revenues.

The deregulation campaign has been waged on many fronts. Restrictions to entry and licensing are disappearing. The office in charge of deregulation estimates that its deregulation effort may reap benefits of 10 per cent of GNP.

Trade liberalisation completes the restructuring picture. Tariffs have been cut, once-comprehensive import licensing requirements have been virtually abolished, and there are only a few sectors (chemicals, cars) where there are any quotas left. The Free Trade Agreement with Canada and the US is under negotiation. By 2000 Mexico will be a fully integrated part of the north American economy.

Lesson: transformation to a modern, market-oriented and competitive economy takes a long time. Privatisation, deregulation and trade liberalisation are complementary and must go hand in hand.

Governance: this is the most important element of Mexican reform: accountability of officials, continuity, competence, and courage.

President Salinas has brought about a revolution by making accountable government the central focus of legitimacy. This change goes far beyond rooting out corruption. Officials owe allegiance to the goal of stability and prosperity.

Lesson: government plays a central role in rebuilding a prosperous economy. Accountability at every level, continuity of the team and the policies, courage and sheer competence are essential.

And now Brazil? Two factors determine success in economic reconstruction and progress: the assets of a country – resources, human skills, a willingness to work hard, size, and entrepreneurship – and the quality of government. Mexico has the quality of government, Brazil the national assets.

A decade of abuse and neglect, corruption, and a dismantling of institutions have undermined Brazil's performance. If President Collor accepted that stabilisation and restructuring are long-term aims, Brazil could come back and even outperform Mexico.

For the time being, though, resolve is not visible. "Politically impossible" is the objection to any move and excuses abound as to why reform is "easy in Mexico, impossible in Brazil". The national will to try again and to succeed continues largely unbroken, if only the president would lead.

The author is professor of economics at the Massachusetts Institute of Technology

Edward Mortimer

The immigrants we need

Europe is in the front line of south-north migration – and needs to co-ordinate its response

FOREIGN AFFAIRS

In Germany, attacks on hostels for asylum seekers are a daily occurrence. In France, even a veteran liberal like former President Valéry Giscard d'Estaing warns of an "invasion", and calls for blood rather than place of birth to be used as the criterion of French nationality. In Britain, the home secretary, Mr Kenneth Baker, has announced a tightening of asylum rules, making it easier to deport asylum seekers who are judged not to be *bona fide* political refugees.

To Americans, almost all of whom are immigrants or descendants of immigrants, European attitudes on this subject often seem quaint, if not grotesque. But the problem is not, in fact, peculiarly European. It is global. The US certainly lets in more legal immigrants than any European country, but it also devotes considerable resources to trying to stop illegal immigration, and until recently it was towing boatloads of Haitian would-be immigrants back out to sea.

Many Americans openly express their disquiet at the "browning of America" – the fact that immigrants now come predominantly from Asia and Latin America rather than from Europe. The US government has actually tried to correct this by a lottery offering 40,000 work permits to applicants from a group of mainly European countries.

Japan's immigration policy is notoriously restrictive, and even Australia, a country transformed economically and culturally by immigration since the Second World War, but with still only 17m people sharing an entire continent, is now going through an agonised debate on the subject.

The problem is, in essence, a north-south one – using those terms in the technical sense which makes Australia part of the north. The growth of the world's population is now concentrated almost entirely in the south, while employment and other economic opportunities are generally far more promising in the north. Market economics, therefore, dictate a large-scale migration of surplus labour from south to north. Many economists argue that western Europe, with its ageing population and falling birth rate, should welcome rather than fear the injection of able-bodied and relatively cheap labour offered by immigration from less prosperous neighbouring countries.

But this is one area where northern public opinion is unwilling to let market economics take their course. Why? Partly out of straightforward racial and cultural prejudice, partly because it fears an influx of cheap labour will drive down wages and/or create unemployment, while driving up the price of housing and other goods. (One of those goods being the tolerance of the existing population.)

Northern governments thus find themselves obliged to apply increasingly draconian restrictions on immigration, often treating even *bona fide* asylum-seekers with a scepticism bordering on inhumanity.

Restrictions are unlikely to work so long as employers and would-be immigrants share an interest in evading them

But such restrictions are unlikely to work so long as would-be employers and would-be immigrants share an interest in evading them. Their effect is to create an exploited and often terrorised underclass of illegal immigrants; to increase friction between "host" and "guest" communities; and to exacerbate tensions with labour-exporting countries in the south.

The problem is especially acute for Europe because there it has an east-west as well as a north-south dimension. Western governments which for years pressed the Soviet bloc to allow its citizens freedom of movement cannot easily impose tough restrictions on the entry of east Europeans into their own countries. Already the signatories to the Treaty of Schengen – France, Germany and the Benelux countries – have abolished visa requirements for citizens of Czechoslovakia, Hungary and, most significantly, Poland – a country of large population and low standard of living, which has already provided 1m permanent emigrants in the last 10 years. And it must be questioned whether effective controls can be maintained on migration to western Europe from Romania, an even poorer country which with Poland accounts for almost two thirds of eastern Europe's population and more than 80 per cent of its population growth over the past 20 years.

Poland and Romania are net exporters of labour. But they also occupy the greater part of the Soviet Union's western border; and Czechoslovakia and Hungary, which have a short stretch of it in between, are scarcely better placed to cope with a flood of immigrants. Either these countries will become a corridor through which Soviet emigrants reach western Europe, or they themselves will have to impose strict immigration controls at their eastern frontiers.

Europe's southern border is much more clearly defined: it coincides with the Mediterranean, and also with the cultural divide between the Christian or post-Christian west and the Arabo-Islamic world. But that by no means makes it impermeable, though it does make the assimilation of immigrants much more difficult.

There are already 6m people of North African origin in the EC – half of them in France and 800,000 (mainly illegal immigrants) in Italy – as well as large Moslem communities in Britain and Germany, of South Asian and Turkish origin respectively. These communities in western Europe are, to put it at its best, imperfectly integrated into European society. Hostility to them, and especially to the idea of further immigration from their countries of origin, has become a highly-charged political issue.

The governments of France, Spain and Italy in particular are worried at the possibility of further waves of emigration from the Maghreb, propelled by declining living standards and rising unemployment. If these are accompanied, as they might well be, by political upheaval, widespread violence and/or the rise of outspokenly anti-European leaders in one or more of the Maghreb countries, both the flow of migrants across the Mediterranean and the reaction of the "host" populations in Europe might become difficult to control.

Given all that, it is hard to understand why a common immigration and asylum policy, rather than economic and monetary union, has not been at the top of the European political agenda for the last two years. An immediate priority for European states should be to reach agreement on how the external coasts and frontiers of Europe are to be policed, what criteria will be used for the admission of would-be migrants, and how genuine asylum-seekers fleeing from war or persecution are to be identified.

If it becomes necessary to admit large masses of refugees for humanitarian reasons, the burden of housing and supporting them should be equitably shared among European states, according to their ability to pay. At the same time, there should be a joint and continuing effort to establish Europe's probable economic need for, and capacity to absorb, immigrant labour.

On the basis of this estimate, quotas from different labour-exporting countries could be established (as in the US), and the co-operation of those countries in limiting or managing migration should be enlisted, in return for guarantees about the treatment legal immigrants would receive after their arrival in Europe. The housing and absorption of immigrant populations should also be planned on a Europe-wide basis, so as to minimise adverse social consequences, and the cost equitably shared among the recipient countries.

Since politicians of all parties agree that this is one social phenomenon whose management cannot be left purely to the market, they must accept the degree of interventionism required to manage it humanely.

FINANCIAL TIMES
Wednesday October 16 1991

European army proposed by France and Germany

By David Buchan in Brussels, Ian Davidson in Paris, Quentin Peel in Bonn and David White in London

FRANCE AND Germany are proposing the creation of a European army which could eventually reach up to 100,000 troops as part of an EC-wide defence organisation.

Paris and Bonn are due today to announce details of how they intend to expand an existing Franco-German brigade and to invite other WEU member countries to join in the creation of such "a European corps". The new organisation could call on European troops outside the Nato command structure.

A corps would comprise several divisions of 15,000 to 20,000 men each, suggesting that up to 100,000 troops could eventually be involved.

The move came in a letter by German chancellor Helmut Kohl and French president François Mitterrand, which was passed by the Dutch presidency of the EC to other Community governments yesterday.

In spite of incorporating aspects of the recent Anglo-Italian defence plan, the Franco-German move is designed to give a pro-EC twist to discussions of defence at the forthcoming Nato and EC summits.

It states that the EC will "implement a common foreign and defence policy which will eventually include a common defence". It also says that WEU is "an integral part of the process of European union".

France and Germany have also set the framework for common EC foreign policy actions wider than in any of their past statements.

They now include relations with the Middle East, as well as with the US and the Soviet Union, as areas in which the Twelve should henceforth act jointly.

Entering for the first time into detail in a joint initiative, France and Germany propose that the WEU should:

- Be expanded to take in Denmark and Greece, which are members of Nato, and should give neutral Ireland observer status.
- Move its secretariat from London to Brussels, where its meetings should be closely co-ordinated with those of the EC.
- Create a permanent WEU group to plan possible deployments, and set up a European armaments agency.
- Set up military units answerable to the WEU.

Mr Kohl and Mr Mitterrand go on to say that they plan to reinforce the current Franco-German brigade of at most 5,000, which "could become the core of a European corps, including the forces of other WEU member states".

The brigade is stationed in Baden-Württemberg. It is commanded by a German general, based in Böblingen. It falls outside the Nato forces, with the German troops in it coming from the German territorial army.

Britain said last night it would seek clarification from Bonn and Paris on the role of the proposed new joint corps and how it would relate to Nato forces.

Officials said a plan on these lines had been expected, but that it required careful study. It was clear that EC members were "some way" from agreement on future arrangements for handling defence and security. Britain has insisted that any European defence initiatives should be compatible with Nato.

Nato nuclear cuts amount to 80 per cent of European stockpile, Page 3

Move by Moslem and Croat politicians increases threat of civil war

Bosnia votes to leave Yugoslavia

By Laura Silber in Belgrade and Leyla Boulton in Moscow

RESIDENTS of Sarajevo, capital of the Yugoslav republic of Bosnia-Hercegovina, yesterday rushed to stock up on staple foods as fears of civil war with neighbouring Serbia increased after the republic declared itself a sovereign state.

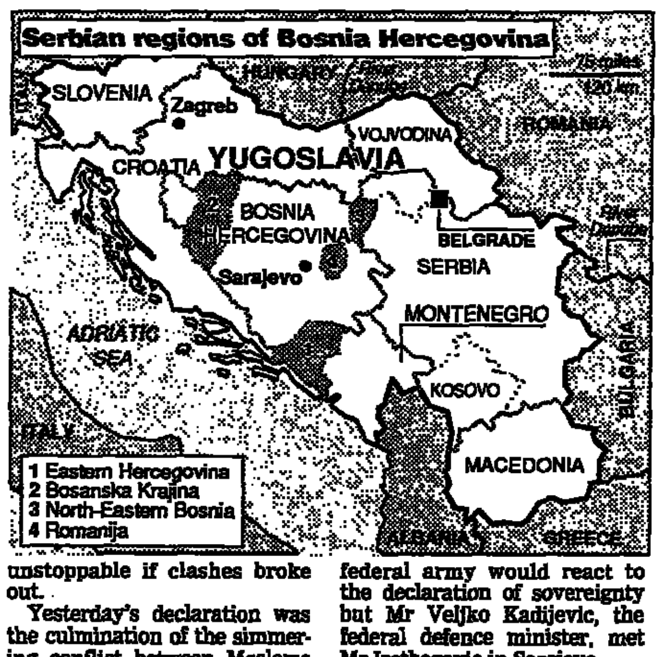
Moslem and Croat parliamentary deputies adopted a "memorandum on sovereignty" early yesterday, paving the way for the republic to secede. Mr Alija Izetbegovic, Bosnia's Moslem president, said: "There is no place for us in Yugoslavia."

The declaration was adopted after 73 Serb delegates abandoned the marathon parliamentary session, which they claimed was illegal. Moslems, Bosnia's biggest ethnic group, make up 43 per cent of the republic's 4.3m population. Serbs account for 31 per cent and Croats 17 per cent.

The Serbs want to remain in the Yugoslav federation and Mr Radovan Karadzic, who heads the Serbian Democratic party, warned that the declaration set Bosnia "on the same road to hell as Croatia and Slovenia".

An eruption of violence in Bosnia, which borders both Serbia and Croatia, has so far been averted by a fragile consensus among the republic's ethnically based political parties. This consensus seems to have been based mainly on fear that bloodshed would be

Serbian regions of Bosnia Hercegovina



unstoppable if clashes broke out.

Yesterday's declaration was the culmination of the simmering conflict between Moslems and Croats, on one side, and Serbs, on the other. Moslem and Croat leaders say Serbia wants to force Bosnia to join a rump Yugoslavia which would have the same boundaries as a Greater Serbia.

Bosnia's Serbs have declared four autonomous regions which border Serbia, Montenegro, a close ally of Serbia, and Krajina, a self-proclaimed Serbian autonomous region in Croatia. It was uncertain yesterday how the Serb-dominated federal army would react to the declaration of sovereignty but Mr Veljko Kadijevic, the federal defence minister, met Mr Izetbegovic in Sarajevo.

Negotiations restarted yesterday to get a relief convoy to Vukovar, eastern Croatia, which has been nearly levelled after attacks by rebel Serbs and the federal army. Croat leaders have refused to lift a blockade of federal army barracks in Zagreb, the Croatian capital, until the relief convoy gets through Vukovar.

As fighting raged on in Croatia yesterday, Mr Mikhail Gorbachev, the Soviet president, tried his hand at mediating in the country's civil war by beginning separate talks in Moscow with the presidents of Serbia and Croatia.

In spite of the failure of European Community peacemaking efforts so far, Mr Gorbachev's spokesman, Mr Andrei Grachev, said there was no harm in a new attempt to find peace. "Just because the first, second, and third attempts have failed doesn't mean we cannot take additional steps in such a bloody conflict."

Mr Grachev said the president had no precise peace plan to offer but that he wanted to try to mediate between the two sides. He hoped to be able to arrange a joint Kremlin meeting with Serbia's Mr Slobodan Milosevic and Mr Franjo Tudjman, the Croatian leader.

Mentioning historical ties with Yugoslavia, and Moscow's experience of dealing with domestic turmoil and of trying to build a new confederation of sovereign states, Mr Grachev said that "the Soviet factor" had not been used to its full potential. "The voice of Mikhail Gorbachev can be of very considerable weight with Yugoslav politicians," he said.

He is also trying to extend his peacemaking efforts to Soviet republics. Later this week, he is due to hold talks with the leaders of Azerbaijan and Armenia, neighbouring republics which are fighting over the disputed enclave of Nagorno-Karabakh.

Brussels likely to back new pension rules

By Andrew Hill in Brussels

RESTRICTIVE government rules on where and how European Community pension funds should invest their Ecu700bn ($840bn) of assets will be lifted if member states adopt draft legislation which the European Commission is expected to approve today.

But EC workers will have to wait for further legislation granting them complete freedom to transfer company pensions from country to country without penalty and belong to pension schemes operated by foreign funds.

The draft directive would knock down obstacles to cross-border pension fund management and investment and back up earlier legislation ensuring the free movement of capital.

In particular, it will prevent member states insisting that a certain proportion of funds should be invested in the company's home country, or in particular assets, such as government stock.

The bulk of EC pension fund assets are controlled from Britain or the Netherlands. According to Commission officials, the directive is unlikely to have a dramatic effect on the UK, which already has a comparatively liberal system, but it will force the Netherlands to adapt its restrictive rules.

The directive also defines rules for prudent investment of pension fund assets, requiring pension funds to take into account "security, quality, liquidity and profitability" of the portfolio.

The Commission's desire to allow cross-border membership of pension funds is hampered by differences between systems, some of which are based on payments into a pooled fund, such as those in the UK and the Netherlands, and others – for example in France – on "pay-as-you-go" systems, in which existing workers in effect pay directly for ex-workers' benefits.

In his preamble to the draft directive, Sir Leon Brittan, the financial services commissioner, promises that further proposals on cross-border membership will not call into question such compulsory pay-as-you-go schemes, even though reserves built up by such schemes are covered by the requirements of the new legislation.

Company pensions can already be provided across borders via life assurance contracts thanks to existing EC legislation, but more direct provision of pensions across borders "remains extremely difficult", according to the Commission.

As a final step towards free provision of fund management services in the EC, the new directive allows companies to choose foreign fund managers for their pension schemes.

UK probes companies on UN list of Iraq's suppliers

By Victor Mallet and Mark Nicholson in London

BRITAIN'S Department of Trade and Industry is investigating up to 20 UK companies named by United Nations inspectors as suppliers to Iraq's nuclear, chemical and biological weapons programmes.

The DTI and the Foreign Office confirmed yesterday that the UN special commission charged with identifying and destroying Iraqi unconventional weapons had sent a secret list of UK companies to Britain last week.

Machine tool and chemicals manufacturers and the makers of the Iraqi "supergun" are said to be on the list. "We are obviously following up the list that we've got to see whether there are any breaches of export controls," the DTI said.

The UN special commission, which plans to issue more lists in the coming week, is sending out the names of companies from any country whose government has requested them. These include Germany, Switzerland, Italy and Belgium. Only the UK and Italy are believed to have received a formal list of names so far.

Officials said the British list was a preliminary collection of fewer than 20 company names based largely on equipment seen at various military sites by the inspectors.

Some of the companies on the UN's preliminary British list supplied Iraq with dual-use equipment, such as machine tools, which could have civilian or military purposes. Several have already been publicly linked to Iraq.

Many companies say they were not aware that their products were being used for military purposes. Among those publicly named so far are the manufacturers of the supergun and Amersham International, which exported ampoules containing minute amounts of plutonium to Iraq.

Amersham, which had export licences from the DTI, said yesterday that it had confirmed export dates and serial numbers in continuing talks with DTI officials. The ampoules found by UN inspectors are used as reference sources of radiation to calibrate monitoring equipment.

The list in the hands of the DTI excludes numerous companies implicated in documents seized by UN nuclear inspectors last month after a four-day siege at the Iraqi Atomic Energy Agency headquarters in Baghdad; those names, including Soviet and east European suppliers, will be collated later, UN officials said.

"I haven't seen a region that was not represented," said Mr David Kay, leader of the fifth UN nuclear inspection which culminated in the siege. UN inspectors say their investigations have been guided partly by intelligence provided by various governments.

It is not clear when or if the UN inspectors' collection of names will be made public. British government officials described the list yesterday as "the property of the UN", although UN officials have suggested that it is up to individual governments to expose companies if they wish.

UK trade officials suggest that their counterparts in other countries, particularly Germany, will emerge with more egg on their faces than the British when more details of foreign suppliers for Iraq's nuclear and other programmes are disclosed.

THE LEX COLUMN

An outbreak of tunnel vision

What happens when the irresistible force meets an immovable object? Fortunately for the geologists, the question has not been tested under the English Channel. On the surface, though, the reckoning for investors in Eurotunnel and the 10 Anglo-French contractors looks to be fast approaching. The long-running squabble between the two, which yesterday reached the courts, is being played for such staggeringly high stakes that it is difficult to see who will budge.

Outsiders must assume that both camps have exaggerated their case. Hence the huge discrepancy of over £800m – or more than £1bn in today's money – between what Eurotunnel says the contractors should be paid and what the TML consortium insists it is owed. The trouble with splitting the difference – regardless of who is to blame for the cost overruns – is that few of those involved can afford to. The UK contractors such as Taylor Woodrow, Costain and Wimpey can hardly countenance loss provisions which might wipe out what meagre profits they will make this year. Given the latest health and safety requirements, Eurotunnel's financial headroom is down to a mere £650m on its own numbers, not enough to get through if it carries on in its accident-prone way.

The consequence is a giant poker game, featuring an increasingly strident Sir Alastair Morton, Eurotunnel's chief executive, and the spectacle of blue-chip contractors threatening to down tools like old-style trade unionists. Eurotunnel's shares, which have fallen 12 per cent in the last 10 days, may not have fully acknowledged how far the odds have shortened on a refinancing.

British Gas

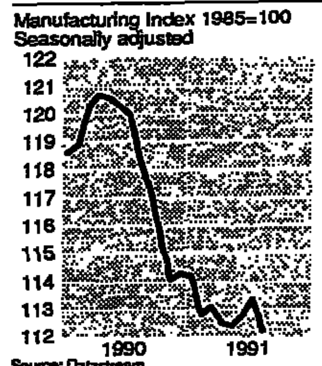
Yesterday's decision by British Gas to raise prices for power station supply contracts from 1996 was unusual in that it came with the regulator's blessing. The company has otherwise made an abrupt descent into regulatory purgatory. Last week's report by the Office of Fair Trading appears to have taken Gas by surprise. More worryingly, it also seems to have triggered a defiant set of responses: witness Monday's suggestion that it might unilaterally abandon the five-year domestic price deal.

Judging by its recent shenanigans, Gas believes the OFT report has so fundamentally changed its business that any previous agreement with

FT-SE Index: 2,576.7 (+2.2)

UK output

Manufacturing index 1985=100
Seasonally adjusted



Source: Datastream

Ofgas can be torn up with impunity. Ofgas argues that the effects of the OFT's suggestions, allowing for a possible referral next year to the Monopolies and Mergers Commission, can only be measured in the longer term; and in the meantime, Gas is needlessly disrupting its own market.

The question is what Gas thinks it can gain by these tactics. A favourable political interference looks as unlikely as divine intervention. It is conceivable that tomorrow's board meeting will take the view that the company has been so badly wronged that it should push for a quick judgment by the monopolies commission. Gas has badly misread official intentions once. Given that a truly thorough review of how to achieve a competitive UK gas industry could wreak havoc with an already battered investment, shareholders might prefer not to gamble on the company's judgment a second time.

Currencies

As the dollar moved back over Y130 in Europe yesterday, it began to look as though the finance ministers from leading industrial countries had signally failed in their efforts to talk the Japanese currency up. Instead, by focusing so heavily on the weakness of the Soviet economy at the IMF annual meeting, they appear to have unintentionally sparked a bout of D-Mark weakness.

To be fair, the yen weakened only marginally against the dollar, while it remained firm against European currencies. However, the attempts to talk it higher – motivated primarily by fears of US protectionism – always looked implausible in the face of simultaneous pressure for lower interest rates. This can only have grown after September's 0.2 per cent fall in Japanese wholesale prices added to concern about the weakening economy and faltering money supply growth. High-level chatter about a stronger yen may eventually allow Japan to cut rates without it actually weakening on the exchange markets, though a US rates cut as well would help.

As for the D-Mark, part of the swing appears to reflect disappointment over the US failure to ease monetary policy at a time when the futures markets are still not discounting a further increase in German rates. Assuming the D-Mark really is suffering from Soviet worries, such a rate increase begins to look more likely. Here again, the Bundesbank's life would be made easier by easier money in the US. Another case for concerted action?

UK economy

Whether or not UK inflation has finally been conquered, yesterday's economic data provided further evidence that it is not about to return in a hurry. August's new trough in manufacturing output – down 5 per cent from a year ago and 7 per cent from last spring's peak – may be slightly freakish. But as anecdotal evidence suggests, it reflects a short-term reality which plainly has a bearing on output price inflation, now down to an annual 4.7 per cent excluding food, drink and tobacco.

The likelihood is that non-oil output will have levelled out in the third quarter, marking the end of the recession. But the sluggish picture thereafter still looks bad news for equities. It should be correspondingly good for bonds. Perversely, the market may be more concerned with the damage wrought to Tory prospects by economic stagnation than with the outlook for inflation and interest rates.

Citicorp

In the old days, Citicorp's decision to pass its dividend would have sent shivers through the international banking system. That this apparently no longer holds suggests the once mighty bank has lost its power to shock. There is no guarantee that the latest $930m in charges will restore profitability in a way that would alleviate its dire shortage of capital. But patience with Mr John Reed, the chairman, must now be wearing very thin.

Japan's Big Four start to pay penance

Continued from Page 1

acquired a large stake, while all of the Big Four have been banned from dealing with corporate customers for between one and three weeks as a penalty for compensating favoured clients.

But the second-tier competition to the quartet doubted that traditional corporate and individual clients would desert the punished firms. Okasan Securities, a mid-sized broker, suggested that the entire industry was attempting to atone and there would be no high-profile campaigns attempting to lure away Nomura's customers.

"We shouldn't promote stocks excessively because the punishment is for excessive promotion and so we are restraining ourselves", said Mr Yoshiyuki Miyake, manager of Okasan's general planning department.

Foreign brokers do not expect a sudden rush of Japanese clients, though a manager at a UK house said that "we would be happy if Nomura showed us their corporate client list".

There were rumours doing the rounds that Daiwa, the second largest house, does have plans to use Nomura's absence as an opportunity to make a grab for the top spot. Daiwa's answer: "We have heard these rumours and they are not true. We are trying to be inconspicuous. We want to maintain our integrity, and we are not happy about Nomura losing its market share."

The Big Four – Nikko and Yamaichi are the other two – did lose market share in yesterday's thin trading volume of 260m shares. Their normal turnover share of late has been 27 per cent, but the combined total for the day was 14.5 per cent, with Nomura, usually at the head of the league table, in 16th place.

In the central Japanese city of Gifu, Mr Hiroki Mori, president of Gifu Dai-Ichi Securities, a local brokerage, said the stock shop did have a few extra customers yesterday: "But we often get more people coming in when the Nikkei goes up."

Brokers said the 446.98 rise to 24,307.65 by the Nikkei index, which is easily moved during times of thin trading volume, appeared to be inspired by the revelation that Meiji Milk Products had discovered a substance seemingly capable of killing the HIV virus inside the body.

Meiji hopes to start clinical testing in the US early next year.

Brokers, in their search for a theme to drive the market, pushed other milk companies higher and embraced biotechnology stocks, sugar issues and flour mills.

$885m loss at Citicorp

Continued from Page 1

sion. Some $400m of this relates to the lossmaking Quotron subsidiary, a financial information service which provides price data to traders and analysts worldwide and has been subject to legal action.

About 25 per cent of the $400m is believed to be related to goodwill which is being written off. The remaining $300m will cover writing-off assets related to older technology and software and some severance costs.

News of Citicorp's losses bought a credit down-grading by Standard & Poors.

WORLDWIDE WEATHER

		°C	°F			°C	°F			°C	°F			°C	°F			°C	°F
Ajaccio	F	22	72	Berlin	S	18	64	Caracas	C	29	84	Faro	S	20	68	Islamabad	C	18	64
Algiers	F	22	72	Biarritz	C	15	59	Casablanca	F	19	66	Florence	F	16	61	Istanbul	S	21	70
Amsterdam	F	15	59	Bombay	F	30	86	Chicago	S	2	36	Frankfurt	C	13	55	Jakarta	F	33	91
Athens	S	25	77	Bordeaux	R	15	59	Cologne	S	18	64	Geneva	F	15	59	Jersey	S	18	64
Bahrain	S	31	88	Boulogne	S	19	66	Copenhagen	R	13	55	Gibraltar	S	19	66	Johannesburg	F	20	68
Bangkok	C	32	90	Brussels	S	17	63	Corfu	S	25	77	Glasgow	F	11	52	Lima	C	19	66
Barcelona	F	17	63	Budapest	F	23	73	Dallas	S	13	55	Helsinki	R	9	48	Lisbon	S	18	64
Beirut		–	–	Buenos Aires	R	18	64	Dublin	F	12	54	Hong Kong		–	–	London	C	13	55
Belfast	F	10	50	Cairo	S	28	82	Dubrovnik		–	–	Innsbruck	C	17	63	Los Angeles	C	17	63
Belgrade	S	26	79	Cape Town	F	16	61	Edinburgh	F	12	54	Inverness	S	11	52	Luxembourg	C	13	55

		°C	°F			°C	°F			°C	°F			°C	°F			°C	°F
Madeira	F	21	70	Milan	C	16	61	Nicosia	S	27	81	Salzburg	S	17	63	Tenerife	F	24	75
Madrid	F	14	57	Montreal	S	8	46	Oporto	F	16	61	San Francisco	S	12	54	Tokyo	S	21	70
Majorca	F	21	70	Moscow	R	10	50	Oslo	C	9	48	Seoul	F	17	63	Toronto	S	7	45
Malaga	S	21	70	Munich	F	18	64	Paris	F	17	63	Singapore	F	31	88	Tunis	F	24	75
Malta	F	28	82	Nairobi	T	23	73	Peking	S	17	63	Stockholm	Dr	9	48	Valencia	F	20	68
Manchester	C	12	54	Naples	F	18	64	Prague	S	17	63	Strasbourg	S	17	63	Venice	R	17	63
Manila	C	29	84	Nassau	C	30	86	Reykjavik	F	2	36	Sydney	S	32	90	Vienna	S	17	63
Melbourne	S	29	84	New Delhi	S	30	86	Rhodes	S	26	79	Taipei	C	24	75	Warsaw	F	17	63
Mexico City	F	23	73	New York	F	15	59	Rio de Janeiro	F	36	97	Tangier	F	18	64	Washington	C	13	55
Miami	R	23	73	Nice	C	16	61	Rome	R	20	68	Tel Aviv	F	25	77	Zurich	F	16	61

Temperatures at midday yesterday C–Cloudy Dr–Drizzle F–Fair Fg–Fog H–Hail R–Rain S–Sunny Sl–Sleet Sn–Snow T–Thunder

FINANCIAL TIMES
COMPANIES & MARKETS
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Wednesday October 16 1991

INSIDE

IBM profits tumble 84% to $172m

The slowdown in the world computer market was underlined yesterday when International Business Machines reported an 84 per cent drop in third-quarter earnings to $172m. The company also said it expected to cut 20,000 jobs this year. Page 20

Squeeze on interbank loans

Interbank assets of banks in the main economies fell by $79bn in the three months to the end of March. The squeeze in the interbank loans market could reduce the capacity of banks to provide credit to outside customers. Page 22

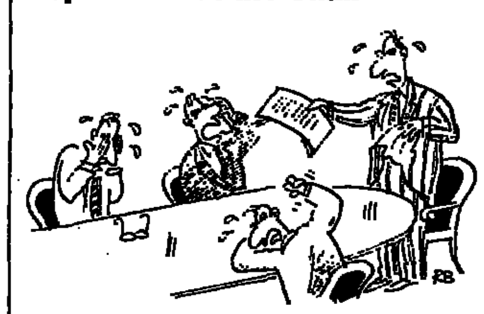
News Corp grilled over salaries

Shareholders in News Corporation yesterday questioned Mr Richard Searby (left), deputy chairman, about the 16 per cent increase in directors' fees last financial year, while the dividend remained frozen. One director received an increase of more than A$2m to A$14.8m ($11.8m). Mr Searby said the group was obliged to meet "market" rates and some increases included reward payments. Page 19

Merrill Lynch cheers Wall Street

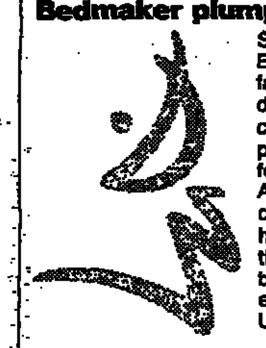
Further evidence of the Wall Street revival was provided yesterday when Merrill Lynch, the largest US broker, reported net profits of $160.2m for July to September. Page 20

Depression in the Chair



The latest round of UK company results were as awful as predicted but there had been hope that the chairmen's statements would herald recovery. These hopes were dashed. Page 25

Bedmaker plumps up profits



Silentnight Holdings, Europe's biggest manufacturer of beds, yesterday reported a 2.7 per cent increase in taxable profits to £4.6m ($7.8m) for the six months to August 3. Mr Bill Davies, chairman, warned that he was "cautious about the immediate future" because there was no evidence of an upturn in UK trade. Page 25

Sales of Swiss chemicals

Ciba-Geigy, the biggest of the Swiss chemicals groups, reported a 5 per cent increase to SFr16bn ($10.7bn) in its consolidated sales during the first nine months of the year. Page 18

Market Statistics

Companies in this issue

Chief price changes yesterday

FRANKFURT (DM)

Rises			
Altana Ind	622	+	14
Herlitz	400	+	10
Schering	786.5	+	13.7
Falls			
Colonia Konzn	840	−	20
Linotype-Hell	389.5	−	10.5

NEW YORK ($)

Rises			
Citicorp	14	+	⅜
Chemical Bank	25½	+	1⅛
Wells Fargo	70⅜	+	3
Merrill Lynch	50⅞	+	2¾
Paine Webber	27	+	2½
¾		+	
Falls			
Pepsico	28¾	−	⅞

PARIS (FFr)

Rises			
Ecco	386	+	25
Havas	466.9	+	19.9
Intertechnique	801	+	54
UAP	519	+	22
Falls			
SILIC	600	−	12
Radiotech	532	−	13

TOKYO (Yen)

Rises			
Furukawa Batt	630	+	69
Meiji Milk	902	+	100
Ono Pharm	6030	+	670
Falls			
Chugokukogyo	600	−	70
Daiichi Hsg Ln	1100	−	100
Hashimoto Form	530	−	40

LONDON (Pence)

Rises			
BritAirways	202	+	6
Enterprise Oil	523	+	18
Lasmo	315	+	15
News Corp	527	+	20
Scottish TV	630	+	25
Seton Healthcr	263	+	8
Shell Trans	528	+	12
Sherwood Grp	718	+	28
Ulster TV	145	+	10
Whessoe	193	+	10
Falls			
Auto Security	158	−	14
Brit Gas	257	−	5
Brit Telecom	399	−	7½
Cityvision	26½	−	7½
Hawtnocell	149	−	5
ML Labs	723	−	57
Psmo	255	−	35
Ratners	79	−	5
Rolls-Royce	137	−	5
Royal Insce	320	−	7

Hoesch board opposed to Krupp merger

By Andrew Fisher in Frankfurt

THE MANAGEMENT board of Hoesch, the German steel and engineering company, is opposed to a merger with Krupp, the industrial group which last week said it owned a quarter of the shares and wanted a friendly merger.

Hoesch's workforce has come out against a merger. Without the board's support, Krupp could struggle to push through a merger, even though it claims a majority of shareholder support.

"We can solve our problems through our own efforts. We don't need a merger", Mr Alfred Heese, Hoesch's personnel director told employees yesterday. The Hoesch board was not against co-operating with Krupp, "but only if we are treated as a partner with equal rights".

He said Krupp's acquisition of 24.9 per cent of Hoesch's shares was "an unfriendly action". The companies had discussed co-operation, but Hoesch knew nothing of Krupp's intention to buy a stake. "So we feel rather disappointed that we heard nothing of this in the talks".

Hoesch said the executive board of four people opposed a merger. The Dortmund-based company has worked out a strategy for the 1990s which will be put to the 21-man supervisory board next month.

At a joint press conference last week, Mr Gerhard Cromme, Krupp's chief executive, said it bought the DM500m ($295m) stake to prevent foreign interests acquiring Hoesch. He said friendly institutions held sufficient shares to give Krupp a majority. These include Westdeutsche Landesbank and Crédit Suisse. He added: "It is not a hostile takeover that lies ahead, but the stabilisation of Hoesch's shareholder structure through its neighbour, Krupp."

Yesterday, Mr Heese said Krupp was a desirable partner because of its proximity – it is based in Essen – and because it has similar activities like steel, motor industry supplies, and industrial plant. But he disagreed with Krupp's course of action. "This is the wrong way, and it leads to one partner dominating the other."

A merger would create a group with turnover of DM28bn and 111,000 employees. Last year, Krupp recovered from heavy losses caused mainly by its industrial plant activities. The company is controlled by the Krupp foundation, with the Iranian government owning a big minority stake.

It controls the quoted Krupp Stahl subsidiary, which last year paid its first dividend for 16 years.

Hoesch suffered a 66 per cent drop in pre-tax profits in the first half of 1991.

Norway may cut cost of borrowing by banks

By Karen Fossli in Oslo

THE NORWEGIAN government's measures to shore up the banking system, to be announced on Thursday, are expected to include ways for banks to borrow more cheaply from the central bank. The banks' competitive position against the heavily subsidised postal banking system is also likely to be strengthened.

On Monday, the government intervened to rescue Christiania Bank, Norway's second biggest bank, which is facing technical insolvency.

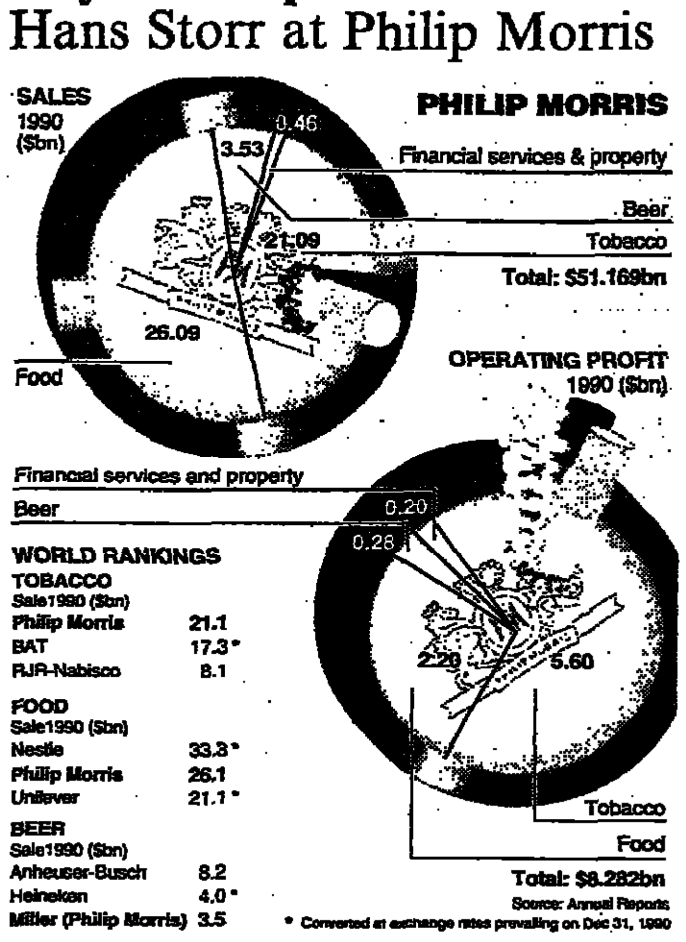
Christiania yesterday wrote to its depositors assuring them of the bank's financial position. The letter outlined the government's pledge of support and asked them to remain with the bank.

The government has already indicated that it will increase allocations to a state-operated fund which acts as a safety net for the banks. It is also expected to reduce the banks' contributions to their own guarantee funds by up to three-quarters. The banks currently pay the equivalent of 0.15 per cent of assets each year into their guarantee funds.

The package is expected to include lower interest rates on some of the banks' borrowings from the central bank, and a higher ceiling for overnight lending by the central bank.

Also being considered is a proposal to lower the proportion of liquid assets the banks must hold in relation to their assets. Currently the banks must maintain a liquidity ratio equivalent to 8 per cent of total assets.

Guy de Jonquières talks to Hans Storr at Philip Morris



WORLD RANKINGS

TOBACCO	
Sale1990 ($bn)	
Philip Morris	21.1
BAT	17.3*
RJR-Nabisco	8.1
FOOD	
Sale1990 ($bn)	
Nestle	33.3*
Philip Morris	26.1
Unilever	21.1*
BEER	
Sale1990 ($bn)	
Anheuser-Busch	8.2
Heineken	4.0*
Miller (Philip Morris)	3.5

Source: Annual Reports

* Converted at exchange rates prevailing on Dec 31, 1990

A predator in no hurry to pounce

The mere mention of Philip Morris on either side of the Atlantic nowadays is enough to quicken stockbrokers' pulses and send share prices of other food and consumer products companies soaring.

There have been rumours for months that Philip Morris is preparing for another of the mega-takeovers which the leader of the tobacco industry has already used to become the world's second biggest food company and third biggest brewer.

Philip Morris has long said it is interested in further acquisitions, particularly in food – and it has formidable resources to throw at them.

With a stock market value of $70bn, it earned pre-tax profits last year of $6.3bn on sales of $51.2bn and expects to generate $18bn of free cash flow in the first half of the 1990s.

Since the group bought Jacobs Suchard, the Swiss confectionery and coffee company, for $3.8bn last year, there has been speculation that its next targets include Heinz and the family-owned Mars group in the US, Cadbury-Schweppes and United Biscuits in the UK, and BSN in France.

However, Mr Hans Storr, Philip Morris executive vice-president and chief financial officer, seems keen to discourage the idea that the group is in any hurry to pounce.

He insisted that finding suitable acquisition candidates at the right price has grown harder, and that Philip Morris's current five-year plan provides for "satisfactory" profit increases simply from organic growth.

"I don't know if we will make a sizeable acquisition in the next one to two years. Nobody knows, probably," he said.

Too much, he said, has been read into the recent renewal by Philip Morris of its bank credit lines and their expansion by $3bn to $18bn.

"I want to dissociate the idea that just because, as part of our long-term planning process, we increased our revolving credit agreement we are now about to make an acquisition."

The credit lines had to be re-negotiated before next March and were increased because Philip Morris wanted them fully to cover its long-term borrowings.

Mr Storr expects these to fall by about $1bn in the second half of this year to $15bn.

They may be reduced even faster if interest rates on US commercial paper fall below 5 per cent, making it attractive to switch into short-term debt.

"At those rates, you can't go wrong, and you need long-term financial back-up to do that," he said.

Still, the extra credit would come in handy if the right acquisition opportunity arose.

But what is Philip Morris looking for?

"The criteria are that an acquisition would have to fit our existing businesses," said Mr Storr.

"The best acquisitions are those where the split is such that you do not fall foul of the anti-trust [monopoly] laws and you achieve synergies" – notably by adding new products to Philip Morris's existing manufacturing or distribution facilities.

In Europe, he said, acquisitions need not be limited to businesses where Philip Morris already has a local presence, mainly cheese, coffee and chocolate – and where anti-trust problems would be most likely.

He cited baked goods, in which the group is strong in the US, as a possible candidate for expansion.

Hans Storr; noncommittal

However, several hurdles lie ahead. Acquisition prices have risen steeply in the food industry since the mid-1980s.

Many companies are now also much more tightly managed, making it harder for acquirers to squeeze higher profits from them by cutting costs.

"Generally speaking, at today's high prices it may be difficult to consider an acquisition, because you couldn't make it pay unless there are some unusual synergistic elements which would reduce this non-return calculation to a more favourable basis," Mr Storr said.

He sees plenty of potential for expansion in western Europe.

Though Philip Morris has $8bn of food sales there, exceeded only by Nestlé and Unilever, its share is barely 1 per cent of the $700bn total market.

However, the industry is fragmented and opportunities to buy large companies with a strong pan-European position are rare.

"There's less of that left, clearly. It's very difficult now," said Mr Storr.

He added that the era of the "big bang" European food acquisition was probably over.

For that reason, he said, Philip Morris may choose to expand through small takeovers.

It would also consider minority stakes, especially if there was a prospect of ultimate control.

Would the group make a hostile bid?

Mr Storr replied that many of its past bids were initially regarded as hostile but finished with agreed deals.

"In the end, we like to be friendly. If you end up with protracted litigation and unhappiness, that's not a desirable result."

Some financial analysts argue that Philip Morris – which is committed to increasing its earnings by between 15 per cent and 20 per cent a year – may need to make a big acquisition simply to absorb surplus cash.

However, Mr Storr said it still has plenty of other options.

One is eastern Europe, identified as an important growth opportunity, which is receiving a rising share of Philip Morris's $1.7bn annual capital investment budget.

The group is also increasingly excited by prospects in south-east Asia.

There may also be scope for increased investment in tobacco, which yields much fatter margins than food.

Tobacco has also been given a new lease of life by the recent opening of many east European and Asian markets.

Strengthening and expanding the tobacco business "has priority over everything else," Mr Storr said.

Other alternatives are to extend its debt-reduction and share re-purchase programmes.

"I could give you a scenario, say two years from now, when our business is basically what it is, but is not growing and our price-earnings ratio has fallen," Mr Storr said.

"It may then be a better investment to buy back our stock in larger quantities than to buy anything else."

The billion-dollar question is whether Philip Morris is genuinely keeping all its options open.

It might be hoping that delaying tactics will lower the price of a big acquisition it has already decided to make.

Mr Storr is studiously noncommittal.

"The message is that we are very pragmatic," he said.

Accor falls 25% but may lift stake in Wagons-Lits

By William Dawkins in Paris and Andrew Hill in Brussels

ACCOR, the French hotel group, yesterday announced a 25.3 per cent profits fall for the first half of the year, amid renewed speculation that it is about to increase its control over the hotel business of Wagons-Lits, the Franco-Belgian tourism group.

Trading in Wagons-Lits shares was suspended in Brussels yesterday, pending an announcement due in the next few days. Belgian stock market authorities were examining a planned financial operation between Wagons-Lits shareholders, said Wagons-Lits.

Accor and French-controlled Société Générale de Belgique (La Générale) last year took a combined 25 per cent stake in Wagons-Lits, paving the way for the French hotel group to take management responsibility for some of Wagons-Lits hotel businesses in March, including Pullman, France's second-largest hotel operator after Accor itself.

Accor refused to comment, but some analysts believe it could buy Wagons-Lits' hotels businesses, as proposed earlier this year by Mr Jean-Marc Simon, Wagons-Lits president. Wagons-Lits' hotels have been valued at FFr3bn ($518m). Others believe La Générale might sell its Wagons-Lits shares to Accor.

Accor's net group profits fell from FFr572.4m in the first six months of last year to FFr427.6bn, hit by the collapse in tourism caused by the Gulf war. Full-year profits should be around the same level as last year's FFr1bn net, said Accor.

Turnover slipped by 1.2 per cent from FFr10.85bn to FFr10.72bn in the first six months, which turns into a 4.9 per cent rise adjusting for acquisitions. Gross cash flow fell by 7.4 per cent, from FFr1.08bn to FFr997.9m over the same period.

Hotels in Britain, France and the Netherlands were hardest hit by the economic downturn. Accor also runs restaurant, catering and luncheon voucher businesses, which were less severely affected. Luncheon vouchers saw a 20 per cent rise in activity, said Accor.

Hotel occupancy rates returned to normal from August and cost reductions decided at the start of the year are taking effect, said Accor. Its links with Wagons-Lits; the expansion in cut-price hotels with last year's takeover of Motel 6, the US chain; and the opening of markets in eastern Europe and Asia, made the outlook "very favourable", said the group.

UK insurer joins European alliance

By Richard Lapper and Hilary Barnes

FRIENDS PROVIDENT, the Dorking-based mutual life assurance company, will join "Eureko", a pan-European alliance linking powerful Dutch, Swedish and Danish insurance interests.

The four partners will co-operate in developing international, particularly European, operations, and will take advantage of resources within the group to expand their domestic businesses.

Future plans include inviting other European companies to join the venture and the possible creation of a fully integrated quoted pan-European company, jointly owned by all partners.

Mr Fred Cotton, managing director of Friends, said Eureko was a strategic alliance rather than simply a joint venture. He said: "Its a brilliant concept – federation can give a financial grouping enormous depth."

The three continental companies, which launched the alliance in May this year, are among the biggest in their respective domestic markets. Topdanmark is number three in Denmark, AVCB is number four in the Netherlands and Wasa is number three in Sweden.

The Eureko partners together earned £1.9bn ($3.3bn) in life premiums and almost £1bn in non-life premiums in 1990.

Friends Provident, the third-largest mutually owned company in the UK behind Standard Life and Norwich Union, earned premium income in excess of £1bn in 1990 and has funds under management of £8bn.

Three of the four partners are mutual companies – owned by their policyholders – while Topdanmark has a mutual background.

They will form a joint shell company in February into which international business will be placed. Among others, Morgan Grenfell, Slaughter & May and Bacon & Woodrow will advise Eureko.

Friends has already developed a joint-venture with AVCB in Portugal, where the two companies have a company with Banco Comercial Portugues. Friends also has interests in North America, Australia and Ireland and has other joint-ventures in Spain and Italy.

Friends has no interests in non-life insurance but Eureko has a presence in the non-life field in the UK through Preferred, a subsidiary of Topdanmark that is a direct writer of motor insurance.

Talks on reservations accord fail

By **Paul Betts** in London and **William Dawkins** in Paris

A PROPOSAL by two of the world's largest airline computer reservation systems to forge a significant partnership in Europe has collapsed because of fundamental disagreements between the two parties.

The plan involved setting up a joint venture between Sabre, the computer reservation division of American Airlines, and Amadeus, the computer reservation system owned by Air France, Lufthansa and Iberia, to link up their operations in Europe and develop new products for the European market.

After the proposed alliance was approved by the European Commission in August, the two groups were expected to finalise an agreement by the end of last month.

However, Mr Jose Antonio Tazon, the Amadeus chairman, said yesterday that after securing the approval of Brussels, "fundamental differences of strategy were apparent and Amadeus decided not to pursue its accord with Sabre".

The deal failed because of differences in understanding of the European market's needs, according to Amadeus. It claimed Sabre wanted the joint venture to be modelled on its own centralised airline reservation system, while Amadeus wanted to keep in place its twin structure, including a Sabre-type centralised booking system for airlines, plus local booking services for rail, ferries, sports events and tour operators.

Amadeus said that it would now seek alliances with other computer reservation systems.

American Airlines said for its part it had become clear in recent weeks that significant "cultural and organisational differences" had emerged, making it impossible to complete the deal. The US company wanted to deal directly with one entity in Europe but said that it ended up dealing with a number of additional parties connected with Amadeus.

Amadeus also lost one of its shareholder airlines this year when Scandinavian Airlines System (SAS) decided to pull out of the European reservation system.

Sabre now intends to market its products independently in Europe. "We will resume our aggressive sales efforts throughout Europe and continued development of the Sabre product line for the European market will be a top priority," said Mrs Kathy Misunas, the Sabre president.

Computer reservation systems are regarded as a critical factor in airline marketing since they provide the information necessary for airlines to maximise their loads and revenues on a day-to-day basis. Their use has also been extended to cover a wide range of travel services.

Lower revenues force cuts at Stena

By **Richard Tomkins**, Transport Correspondent

THE DUTCH subsidiary of Stena Line AB, the Swedish ferry group, yesterday said it was starting a cost-cutting programme because of lower-than-expected revenues.

Stena Line BV, of Hook of Holland, said 34 ship and shore-based jobs would go as part of a drive to save Fl 8.2m ($4.3m) through operational, marketing and personnel reductions.

The cuts come as further evidence of the troubles afflicting the portfolio of ferry companies built up by Stena Line AB over the last three years.

Last month the group's British subsidiary, acquired in April 1990, announced 1,569 job losses and the ending of its Folkestone-Boulogne cross-Channel ferry service because of heavy losses.

The year before, the Swedish parent had to wind up BC Stena Line, its Canadian ferry operation acquired in November 1988, when expected revenues did not materialise.

Stena Line BV, named SMZ/Crown Line when it was acquired by the Swedish parent in 1989, operates three ships on the route between Hook of Holland and Harwich on Britain's east coast.

The company said it expected its results for 1991 to show a deterioration over the previous year's figures because passenger numbers had fallen.

The UK recession was the main reason for the shortfall, it said, but there had also been disappointing figures from the Dutch and German markets.

The on-board job losses will be confined to the Dutch-flagged passenger vessel Koningin Beatrix because the other passenger vessel, the Stena Britannica, is chartered from Sealink Stena.

Last month Stena Line AB, the Swedish parent, announced that it was facing a pre-tax loss of SKr300m ($48.6m) in the financial year ending this December after profits of Skr107m the previous year. It said the losses were almost wholly attributable to Sealink Stena's performance in the UK.

Roche to raise SFr1.03bn in one-for-one rights issue

By **William Dullforce** in Geneva

ROCHE, the Swiss pharmaceuticals and chemicals group, plans to raise SFr1.03bn ($691m) in share capital through a one-for-one rights issue and free warrants entitling shareholders to purchase new non-voting shares.

The package announced yesterday also offers shareholders on a 1-for-26 basis a free issue of non-voting stock entitled to 1991 dividends.

Roche – which in 1989 paid $2.1bn for 60 per cent of Genentech, the US biotechnology company – bought the over-the-counter business of Nicholas Laboratories for $798m, said it was expanding its capital base, in order to keep pace with the company's growth.

Last year the Basle group posted an 11.3 per cent increase in consolidated earnings to SFr948m despite a 1.4 per cent decline in sales to Sfr9.67bn. Since 1985, profit growth has averaged 17 per cent.

In April Roche made an innovative $1bn "bull spread" bond issue in which each bond pays a coupon of 3.5 per cent and has 73 warrants attached. In May 1994, 100 warrants will entitle the shareholders to receive one share or take a SFr7,000 cash payment.

The capital-raising exercise, which will be put to an extraordinary shareholders' meeting on November 5, will have three stages. In the first, scheduled for November 13-20, shareholders will be offered one new share at a price of SFr110 for each existing share of SFr100 par value. Holders of Genusscheine, or non-voting shares with no nominal value, will be able to buy one new share on a one-for-one basis for SFr110.

This first step, doubling the nominal capital to 1.6m and the number of Genusscheine to 8.66m, will bring in some SFr454m in new capital. The second step, the free issue of one new Genusscheine for 26 existing shares or 26 existing Genusscheine, will add 158,852 Genusscheine.

Pernod falls 16.5% to FFr299m

PERNOD RICARD, the French drinks group, yesterday reported a 16.5 per cent fall in profits for the first half of the year, because of higher restructuring charges and a slowdown in demand for both alcoholic and soft beverages, writes William Dawkins.

Net profits fell from FFr358m ($61.8m) in the first half of 1990 to FFr299m in the six months to June, on turnover up 0.8 per cent to FFr7.13bn.

The Gulf War hit sales in hotels, restaurants and duty-free shops early in the year and the general economic slowdown has affected household drinks consumption.

Elf buys 150 Heron stations

By **William Dawkins**

ELF AQUITAINE, the French state-controlled oil group, yesterday agreed to buy 150 petrol stations in the UK from Heron International, the private property, housing and automotive group, in a deal believed to be worth up to £150m ($257m).

The acquisition lifts Elf's share of UK petrol distribution to 5.4 per cent, with more than 800 sites, including the 250 stations it bought earlier this year in a politically controversial deal with Amoco, the US oil group.

Mr Peter Lilley, the trade and industry secretary, referred the Amoco sale to the Monopolies and Mergers Commission last year, on fears that the takeover was a covert nationalisation by the French state.

However, the MMC cleared the deal, arguing that Elf was run on the same lines as a private company.

Officials were unsure whether Britain's Office of Fair Trading would need to examine the Heron sale.

Heron, headed by Mr Gerald Ronson, announced in July that it was hoping to sell the stations for up to £150m, though neither side is disclosing the final price.

Two thirds of the sites will be handed over in the next six months, with the rest by early 1993.

Heron plans to continue operating service stations and expects to open between 30 and 40 next year. Morgan Stanley International handled the disposal for Heron.

Even though the group emphasised that it intends to continue operating service stations under its name, the decision appears to be a change of policy. The 1990 annual report said that it planned to operate more than 250 sites by the end of 1993.

This expands Elf's petrol station network in the Midlands and north-west England, in convenient reach of its 70 per cent owned refinery in Milford Haven, Wales, where Elf earlier this year announced plans to spend £36m on increasing the plant's capacity to make lead-free petrol.

Ciba-Geigy sales advance 5%

By **William Dullforce** in Geneva

CIBA-GEIGY, the biggest of the Swiss chemicals groups, yesterday reported a 5 per cent increase to SFr16bn ($10.7bn) in its consolidated sales during the first nine months of the year.

Sales development in the third quarter had reinforced the forecast from Dr Alex Krauer, chairman, in the half-year report that net earnings for 1991 would exceed the SFr1.03bn posted in 1990, the company said.

At the six-month stage Ciba-Geigy surprised analysts when it posted 4 per cent increases to SFr1.27bn in first-half consolidated net profit and to SFr1.8bn in cash flow soon after ICI and Bayer had disclosed further declines in their first-half earnings. Restructuring, including a management decentralisation, had not been expected to improve results before 1992.

Dr Alex Krauer: points to improved productivity

Dr Krauer attributed the good earnings performance to favourable growth in sales of pharmaceuticals and agricultural products and to the measures introduced to increase productivity. Earnings were also boosted by the consolidation of Maag, the plant protection products company which Ciba-Geigy bought last year and which usually books a profit in the first half and a loss in the second.

Due mainly to the seasonal nature of its agricultural business, Ciba-Geigy's sales and profit as a whole are usually considerably higher in the first half than in the second. In the first three quarters, sales of pharmaceuticals at SFr5.03bn were 9 per cent ahead compared with the corresponding period of 1990 while turnover in agricultural products, including Maag, was up by 18 per cent to SFr4.07bn.

Lloyds questions MMC referral

By **Jane Fuller** in London

MR ALLEN Lloyd, chairman and chief executive of the UK's second largest chain of retail chemists, said yesterday that political sensitivity seemed to have played a part in the referral of his company's latest bid to the Monopolies and Mergers Commission.

Concern about the distribution of prescription drugs was the reason given by the trade secretary for referring both Lloyds Chemists' £83m ($142m) recommended bid for Macarthy and a lower offer from UniChem, one of the UK's biggest pharmaceutical wholesalers.

However, Mr Lloyd pointed out that health was one of the issues that was high on the political agenda in the run-up to the general election in the UK.

He protested that his business was retailing, not wholesaling. Although his company supplied nearly 80 per cent of the drugs sold in its 637 stores, that only amounted to 5 per cent of the market. Boots – which Lloyds was trying to catch – had twice as big a slice, while UniChem and AAH had nearly 30 per cent each, he said.

Mr Lloyd admitted that he had also been surprised when UniChem's bid for Macarthy was referred. Macarthy, through its 175 Savory & Moore shops, represents only 1.5 per cent of the total number of UK pharmacies, which is virtually fixed about 12,000.

Lloyds has grown rapidly by acquisition. Its purchases in mid-1990 and spring 1991 made a significant, but unspecified, contribution to a 53 per cent increase in pre-tax profit to £20.8m.

The company ended its financial year with more than 1,000 chemists' drug stores and health food shops, from less than 600 in June 1990. Its biggest acquisition, Kingswood-GK chemists and the Holland & Barrett health food chain, were included for six weeks.

Aker takes 54% stake in NPC Holding

By **Karen Fossli** in Oslo

AKER, one of Norway's biggest industrial groups, has acquired a 54.1 per cent stake in NPC Holding, a private Norwegian engineering and consultancy group, for NKr129.6m ($19.5m).

Aker said that it paid NKr85 a share to acquire the stake from five of NPC's major shareholders and that it was preparing to make an offer for the outstanding shares at the same price.

NPC Holding is valued at NKr242m and has 1,400 employees. Last year the group's turnover reached NKr1.1bn, of which NKr200m represented sales outside Norway.

The purchase of NPC represents a significant strengthening of Aker's position in the market for offshore – oil and gas industry – and land-based development projects.

The NPC acquisition will boost Aker's staff to more than 14,000, of which 9,000 employees are involved in oil and gas-related activities. Aker said that its oil and gas technology division had an order reserve of about NKr12bn.

Japanese retailers fear tough half

By Robert Thomson in Tokyo

LEADING Japanese department stores reported mixed results yesterday for the first half and pointed to a 0.1 per cent year-on-year increase in sales for September, the lowest rise in eight years, as an indication of a difficult second half.

Mitsukoshi, the prestigious Tokyo chain, reported a 4.8 per cent increase in pre-tax profit at Y9.37bn ($72.4m) for the six months to the end of August, with sales 2.3 per cent higher at Y432.59bn.

But, like most stores, Mitsukoshi saw a sharp fall in sales of paintings, down 34.2 per cent, following the collapse of Japan's "economic bubble" and the fine art market, which had been a target for speculative investment.

Sales of household appliances rose 8.2 per cent, clothing was 4.6 per cent higher and foodstuffs rose by 6.5 per cent. For the full year the company expects a pre-tax profit of Y19.4bn compared with the Y19.3bn reported last year.

Matsuzakaya, the Nagoya-based company, reported a fall of 21.3 per cent in pre-tax profit to Y5.15bn, its first fall for eight years. Sales rose 7.1 per cent to Y240.9bn, following the introduction of new clothing lines.

The company said that the profit fall was caused by increased advertising charges and an increase in depreciation expenses following the renovation of stores in Nagoya, Tokyo and Hong Kong.

For the full year, the company expects a 9.9 per cent increase in sales to Y513bn, though pre-tax profit is expected to fall 24.7 per cent to Y10.8bn.

Marui, another Nagoya-based company, reported a 26.7 per cent increase in pre-tax profit to Y708m on a 6.4 per cent increase in sales to Y40.2bn.

Sales of suits rose 5.3 per cent, household items were 4.9 per cent higher, and foodstuff sales rose 8.5 per cent. For the full year, the company is expecting a slight 0.6 per cent increase in pre-tax profit to Y1.45bn.

Mr Mike Allen, retail sector analyst at Barclays de Zoete Wedd, said that several of the leading department store chains had renovated buildings this year, and had been affected by a fall in their sales to corporations, which account for about 25 per cent of their business.

● Isuzu Motors, the Japanese motor group, yesterday announced a revision in its forecast for full-year earnings in the year ending March 10 1992, to show deeper operating, pre-tax and net losses than previously expected, AP-DJ reports from Tokyo.

Isuzu said the unconsolidated pre-tax figure was now seen as a loss of Y49bn, compared with a profit of Y15.37bn a year earlier. In June, the company had predicted a pre-tax loss of Y35bn for the current year.

Isuzu cited the sluggish auto market in north America for bringing down the volume of its auto sales, putting revenues under pressure and hampering profitability.

News Corp directors under fire over pay

By Mark Westfield in Sydney

DISGRUNTLED News Corporation shareholders subjected deputy chairman Mr Richard Searby to 30 minutes of questioning at yesterday's annual meeting over the 16 per cent increase in directors' fees last financial year while the dividend remained frozen.

Mr Searby was standing in for chairman and chief executive Mr Rupert Murdoch who was in the US and unable to face his shareholders in Adelaide.

News Corp lost A$393m (US$314.3m) after heavy abnormal write-downs and losses on the sale of some US magazines in the year to June 30. Operating earnings rose 3.6 per cent.

One shareholder complained that directors' payments had increased to A$25.13m from A$21.68m yet dividends had not been lifted since 1989 and would not rise for another three years as part of the renegotiation in February of US$7.6bn in group debt. One director, understood to be Mr Barry Diller, Fox Film's chief executive, received a salary increase of more than A$2m to A$14.8m.

Mr Searby said the group was obliged to meet "market" salaries and that some of the increases included specific reward payments. He declined to comment when another shareholder asked whether it was wise to have the same person as chairman and chief executive when this was a common feature of a number of Australia's corporate failures.

On the group's prospects, Mr Searby said News Corp would improve its result this financial year, mainly as a result of cost cutting and a 19 per cent reduction in staff and others in the year just gone.

"The company does not expect any significant upsurge in revenues while depressed conditions persist, but the effect of the economies introduced would expect to show up in the bottom line and to place the company leaner, more efficient with improved margins and better products, in a strong position for the future," he said.

Mr Searby expected Fox Film and the US television interests to support group earnings this year. The UK and Australian newspapers were maintaining circulation and profits.

The UK satellite television venture, BSkyB, was ahead of budget and weekly losses had been cut from £10m a year ago to £1.5m.

Satellite dishes had been installed in 1.7 homes and sales were "strong". He said 3,000 employees were made redundant when Sky TV merged with the rival BSB group during the year. News Corp would persevere with across-the-board cost cutting after overheads were reduced 10 per cent in 1990-91.

The group's share price rose 50 cents to close at A$11.40 yesterday The Australian market rose 22.7 points.

Tourang boosted as Fairfax bids close

By Emilia Tagaza in Canberra

BIDDING for the Fairfax group closed yesterday with a boost to the chances of the Tourang consortium, led by Mr Conrad Black, the Canadian proprietor of the London Daily Telegraph and Mr Kerry Packer, owner of the Nine Television Network.

As bidding closed, Mr Trevor Kennedy, Tourang's managing director, announced his resignation. Mr Kennedy is a former employer of Mr Packer and his presence in Tourang had raised speculation about Mr Packer's *de facto* control of the consortium.

Last month, the Labor cabinet approved amendments to broadcasting laws which tightened the definition of an "associate". The amendments were designed to stop television proprietors from gaining indirect control of a leading newspaper through their associates.

Mr Packer holds 14.9 per cent of Tourang, which is below the 15 per cent media cross-ownership threshold.

Announcing his resignation yesterday, Mr Kennedy said the doubts raised about his independence, because of his past employment with Mr Packer, although completely unjustified, made it impossible for him to continue.

Another hurdle Tourang has cleared was over the limits on foreign ownership. Foreign shareholdings of more than 15 per cent in any Australian company need approval by the Foreign Investment Review Board.

Mr Black holds 20 per cent of Tourang and Hellman and Friedman, the US investment bank, holds 10 per cent.

Last week, the Labor caucus allowed an unlimited foreign non-voting equity in the print media.

Voting equity, however, would be limited to 20 per cent.

The other two main bidders for Fairfax are Mr Tony O'Reilly, the Irish chairman of the US Heinz food group, and Australian Independent Newspapers backed by the large investment institutions including AMP.

Lower gold price hits Anglovaal

By Philip Gawith in Johannesburg

A LOWER overall gold price and increased costs after recent wage increases contributed to a 15.5 per cent drop in net profits to R36.4m ($12.9m) at the four gold mines managed by the Anglovaal group during the September quarter.

Hartebeestfontein, which produces more than 70 per cent of the group's gold, produced 7,121kg of gold compared with 7,237 last quarter. Working profit at the main plant dropped to R7,748 per kg from R9,269 per kg because of a lower gold price of R33,339 per kg compared with R34,349 and an increase in working costs to R25,591 per kg from R25,080.

The fall in profits was cushioned by a lower tax bill. After-tax profits fell to R34.9m from R37.3m.

The Loraine mine made a working loss of R5.08m during the quarter compared with a R2.67m loss the previous quarter. Last month it was announced that the mine would reduce its milling rate to 90,000 tonnes a month from 113,000 tonnes in an effort to return to profitability. Management has said it would consider phased closure of the mine if losses were not eliminated by November. The number of staff would be reduced by 11-14 per cent.

Eastern Transvaal Consolidated (ETC) saw after-tax profits drop to R3.6m from R5.3m, but this was the result of a planned annual roaster shutdown which affected yields, recoveries and the price. After-tax profits at the small Village Reef surface treatment operation dropped to R540,000 from R755,000.

Strong mining performance boosts JCI

A STRONG performance from the Randfontein Estates mine was the key to significantly improved results from the gold mines managed by the Johannesburg Consolidated Investments (JCI) group in the September quarter, writes Philip Gawith.

Group net profits rose by 36.9 per cent to R54.1m on the back of a 64.8 per cent rise to R46.08m at Randfontein, JCI's largest mine.

Profits were lower at the other two mines, Western Areas and Joel.

Randfontein's good performance was the result of a 10.9 per cent increase in the yield, to 3.55 grammes per tonne, and a 6.6 per cent reduction in cost per kilogram to R26,678 per kg, despite having to absorb an increase in wages.

The higher yield helped lift gold production by 10.9 per cent to 7,724kg and the gold price was marginally firmer.

Western Areas managed to lift gold production to 2,938kg from 2,849kg, but with operating profit at only R0.47 per tonne milled, down from R1.89, the gold operations are marginal. Some R6.4m of the mine's R7.2m operating profit came from uranium.

Joel did well to lift its yield by 13.7 per cent, and gold production by 17 per cent to 1,524kg, but the good work was undone by a sharp rise in costs which saw after-tax profits cut to R200,000 from R2.5m.

P&O buys New Zealand shipping line

By Terry Hall in Wellington

NEW Zealand Line, the former state-owned Shipping Corporation of New Zealand set up by the Labor government in 1973 to provide local competition to British owned lines, has been sold to the Peninsular and Oriental Steam Navigation Company (P&O) of the UK.

The New Zealand company will lose its identity, and 120 jobs will be shed. It was sold for about NZ$40m (US$22m).

P&O will will take over trade between New Zealand and Europe and Japan as well as the Australia-New Zealand-Tasmania business. P&O has sold its trade to north America to Bluestar Pace NZ. It will operate nine of the 13 vessels working the New Zealand-Europe route. The line's flagship, New Zealand Pacific, is to retain its New Zealand crew.

NZ sheepskin processor turns in poor result

NEW Zealand Light Leathers, the country's largest processor of sheepskins, has reported its most difficult trading year, making a net profit of NZ$695,000 (US$394,000) in the year to June, compared with NZ$3.7m in the previous 18 months, writes Terry Hall.

Britain's Strong and Fisher, which owns 82 per cent of the company, said in May it would sell its holding to concentrate on British manufacturing. However Mr Jack Hazlett, chairman of New Zealand Light Leathers, says in his annual report that no progress has been made on the sale.

Mr Hazlett said the company was at the bottom of a downturn in demand for leather goods. While the future remained uncertain an increased level of throughput was being maintained.

INTERNATIONAL COMPANIES AND FINANCE

IBM optimistic despite 84% slide

By Martin Dickson in New York

INTERNATIONAL Business Machines yesterday underscored the sharp slowdown in the world computer market when it reported an 84 per cent drop in third-quarter earnings.

However, shares in the world's largest computer manufacturer rose as it expressed cautious optimism over the business outlook.

Mr John Akers, chairman, said the company was encouraged by demand for its new products. "Although business conditions remain unsettled, we expect improvement in the pace of our business as shipments of our new product line build," he said.

The company also announced it expected to cut its workforce by more than 20,000 this year – compared with a 17,000 figure given during the summer – as part of a drive to cut costs.

IBM's net earnings for the quarter were $172m, or 30 cents a share, compared to $1.11bn, or $1.95 cents, in the same period of last year. Revenues dipped 5.5 per cent, from $15.3bn to $14.4bn.

The figures were broadly in line with analysts' expectations and, after an early morning dip, IBM shares stood at $102⅞, up $1⅝, at lunch-time.

The company, with other computer manufacturers, has been hit by recession in the US, weaknesses in international markets, and fierce price competition, particularly in personal computers.

It has also been affected by its introduction of a new range of mainframe computers over the past year. This has slowed the market as customers deferred purchases while assessing the new equipment.

Wall Street expects the roll-out of the new range to have a strong impact on fourth-quarter results.

The company told analysts third-quarter gross margins dipped 1.5 percentage points from the second quarter's 51.2 per cent.

It saw sales growth in air-cooled mainframes, the mid-range AS-400 computer, and in the RS-6000 workstation on a year-to-year basis. However, sales of high-end mainframes, storage devices, and low-end products dipped. Personal computer unit volume rose but revenues fell, reflecting pricing pressures in the market.

The company said the rate of revenue decline was less than in the second quarter. However, it said it was too early to say whether IBM had held its personal computer market share in the quarter.

It noted that the rate of decline in its overall business in the US and Europe had slowed from the second quarter, while the Asia-Pacific region had recorded modest year-on-year growth.

Wall St brokers turn in record profits

By Patrick Harverson in New York

FURTHER evidence of the revival on Wall Street since last year's slump was provided yesterday when two of the biggest US broking houses, Merrill Lynch and PaineWebber, reported strong third-quarter earnings.

The results were achieved against a background of lower interest rates and more active investor participation in securities markets.

At Merrill Lynch, the largest US broker, net profits between July and September were $160.2m, made on net revenues of $1.8bn. This compared with the $46.1m earned in the same quarter of 1990, when the securities industry was plagued by recession and uncertainty surrounding the crisis in the Gulf.

The excellent third quarter has ensured that 1991 will be a record year for Merrill. Nine-monthly earnings now stand at $525.4m, a figure that already exceeds the company's previous full-year record performance of $463.2m, set in 1986.

Earnings increased across the full range of Merrill's business activities. Revenues from principal transactions – powered by big profits from debt, equity and high-yield bond trading – jumped 22 per cent to $484m.

Income from investment banking, where Merrill again led Wall Street in the underwriting of corporate stocks and bonds and performed well in mortgage and asset-backed securities underwriting, rose 57 per cent to $293m.

Commission revenues rose 16 per cent to $521m, thanks to interest from investors in the company's equity-based mutual funds, while fees from asset management and custodial services advanced 14 per cent. Total assets under fee-based management rose $16bn to $122bn.

Although overall costs rose during the quarter at Merrill, this reflected an increase in volume-related compensation and benefits paid to the company's workforce of brokers, and of higher clearing and exchange fees.

If costs tied to business volume are excluded, quarterly non-interest expenses fell 5 per cent compared to a year ago.

At PaineWebber, the earnings picture was similar, with strong investor interest in equities and bonds, and an improved cost environment, providing a sharp boost to profits.

Third-quarter net income was a record $38.3m, compared with the $9.6m earned a year earlier. Total revenues for the period were up 22 per cent at $529m.

The stock market reacted positively to yesterday's figures. Merrill Lynch shares rose $1⅞ to $50 and PaineWebber climbed $1⅝ to $25⅞.

Surge in mobile sales helps lift GTE by 4%

By Martin Dickson

GTE, the largest US local telephone company, yesterday reported a 4 per cent increase in third-quarter net income. It attributed the improvement to growth in telephone calling volume and a rise in the number of its cellular phone customers.

The group said net income was $462m, or 51 cents a share, compared with $437m, or 49 cents, in the same period of 1990.

Sales and revenues totalled $5.4bn, against $5.3bn.

Adjusted to include a full period of operations for cellular properties bought in the 1990 fourth quarter, earnings per share rose 9 per cent.

GTE's local telephone revenues rose 1 per cent to $3.9bn. Operating income, however, was up 5 per cent at $1bn, due to a 7 per cent annual increase in usage of the group's local exchange network for long distance calling, a 3 per cent increase in the number of access lines in service, and a continuing programme of expense cuts.

In cellular telephones, where it is the second largest operator, the group added 45,000 customers during the quarter, taking its total to 727,000, compared with 483,000 at the end of 1990's third quarter.

However, that increase was due partly to the acquisition of 50,000 customers through the purchase of cellular properties. Cellular revenues for the third quarter were $199m, up 28 per cent after adjusting 1990 revenues to include properties bought in the fourth quarter.

GTE's lighting and precision materials operations, which were more vulnerable to the economic downturn, saw operating income cut from $53m to $31m. This reflected reduced margins, lower shipments of precision materials and higher operating costs, GTE said.

Reichmanns to float part of IPL stake

By Bernard Simon in Toronto

TORONTO'S Reichmann family hopes to expedite the sale of its 63 per cent stake in Interprovincial Pipe Line through a public offering of the Edmonton-based utility's US operations. IPL, which operates the world's longest oil pipeline system, said yesterday the planned refinancing would generate about US$580m in cash.

Part of the proceeds will be paid to shareholders, including the Reichmanns, in the form of a special dividend. The rest will be earmarked for IPL's capital projects.

The Reichmanns have put their stake in IPL up for sale as part of a strategy to focus on their real estate interests, which include the Canary Wharf development in London.

Although the family declines to discuss its financial situation, the property slump in North America and Europe has provided an incentive to raise cash from other sources.

IPL said the restructuring would "facilitate the sale" of the Reichmanns' control block, most of which is held through GW Utilities, a holding company. Negotiations are under way with an unidentified bidder.

Under the proposal, IPL's wholly-owned subsidiary, Lakehead Pipe Line, would transfer its US business to a limited partnership. An 80 per cent stake in the partnership would be offered to the public, with Lakehead retaining the remaining 20 per cent and continuing to operate the pipeline. Lakehead would have an additional participation through cash payouts when growth exceeds a pre-determined target.

The public share offering is expected to raise about $400m, while the partnership would also take on debt of about $300m.

Lakehead contributes about half of IPL's earnings, which totalled C$44.4m in the first half of this year. Its network consists of 1,750 miles of pipeline, stretching through the US midwest from North Dakota to Sarnia, Ontario.

Banc One advances to $133.9m

By Barbara Durr in Chicago

BANC One Corporation, the midwest regional bank based in Columbus, Ohio, lifted third-quarter earnings to $133.9m, or 81 cents per share, from $109.1, or 68 cents, a year ago.

The biggest contributors to its solid performance were continued growth in retail loans and good net interest margins.

Although the bank increased possible loan-loss reserves to 1.73 per cent of loans, its low exposure to highly-leveraged transactions, real estate and developing country debt has put it a more favourably position than many of its competitors. Non-performing loans stood at $513m, or 2.21 per cent of the total, in the third quarter.

The unburdened balance sheet has allowed it to engage in a series of acquisitions, including four Ohio-based affiliates of PNC Financial Corp, and, through Bank One, Texas, the Benjamin Franklin Federal Savings and Loan, with 13 offices and deposits of $1.3bn, from the Resolution Trust Corporation.

For the first nine months, Banc One earnings were $365.2m, or $2.35 per share, an increase on a per-share basis of 13 per cent.

First Chicago, another large midwest regional bank, had to contend with higher exposure to soured real estate.

It reported third-quarter net income of $24.6m, or 19 cents a share, down from $36.2m, or 45 cents, in the year-ago period.

The latest results included a $35m, or 33 cents, pre-tax restructuring charge, while the comparative quarter last year included an $8.8m tax benefit.

The bank had whittled down its non-performing assets to $1.44bn, from $1.56bn on June 30, thanks to "aggressive portfolio management", said chairman Mr Barry Sullivan. But provisions for credit losses had to be increased in the last quarter, to $105m, with an additional $40m for real estate.

First Chicago's net income in the nine months was $131.4m, or $1.55, against $173.3m, or $2.31, last year.

NCNB, the south-eastern regional bank based in Charlotte, North Carolina, more than doubled third-quarter net income to $131.1m, or $1.09, compared with $57m, or 51 cents, last year. It was boosted by gains in investment securities totalling $66.1m, against just $1.6m a year ago.

PepsiCo hit by charge for reorganisation

By Nikki Tait in New York

PEPSICO, the international soft drinks, restaurants and snacks group, yesterday revealed a slump in third-quarter profits after tax, from $336.6m to $285.4m. The figures bring net income for the first nine months to $809.1m, barely level with last time's $811m.

Much of the third-quarter damage came from a $100.4m "unusual" charge – taken above the line – made up largely of a $91.4m restructuring charge at the Frito-Lay snacks division.

PepsiCo had warned about the costs of the Frito-Lay reorganisation, and its shares yesterday morning suffered a modest $¼ fall to $28⅞.

On the soft drinks side, where Pepsi is slugging out a battle for market share with arch-rival Coca-Cola, sales rose 3 per cent to $1.8bn worldwide.

Domestically, there was 2 per cent revenue growth, with bottler case sales up by over 1 per cent. Pepsi said volume gains were largely due to its Mountain Dew and Diet Pepsi brands. Overall, operating profits on the drinks side advanced 4 per cent to $246.8m.

Drug groups exceed expectations

By Karen Zagor in New York

SURPRISINGLY strong third-quarter results from American Home Products and Upjohn, two big US pharmaceutical companies, spurred active trading in the stocks yesterday morning.

American Home Products, which recently introduced the Norplant birth control implant, reported a 21 per cent gain in third-quarter net income, to $384.9m, or $1.22 a share, from $317.6m, or $1.01, a year ago.

Excluding contributions from the company's household products and depilatory businesses, which were sold in June 1990, net sales rose 10 per cent to $1.88bn.

On Wall Street, shares in American Home Products climbed $3½ to $73 in heavy, mid-session trading.

Mr Hemant Shah, an analyst at HKS & Co in New Jersey, said American Home Products' results were impressive.

He increased his 1991 earnings estimates to between $4.40 to $4.50 a share, from $4.38, on the back of the third-quarter figures.

Upjohn, which makes the Rogaine treatment for baldness and Xanax anti-anxiety drug, turned in a 32 per cent improvement in net income, to $140.2m, or 75 cents a fully-diluted share, against $106.4m, or 57 cents, a year earlier.

Excluding a loss from discontinued operations in the 1990 quarter, Upjohn's earnings from continuing operations grew 25 per cent in the latest quarter.

Operating revenue advanced 12 per cent to $836m, from $748.3m a year ago.

On Wall Street, shares in Upjohn added $⅞ to $43 in active trading.

In spite of the strong quarter, many analysts are not bullish about the company's long-term prospects. Upjohn's Halcion sleeping pill, which brings in about $250m in worldwide sales, was recently banned in Britain. In addition, the patents of several of Upjohn's drugs are due to expire in 1993 and 1994.

"There are not enough new products in Upjohn's pipeline to off-set the negatives," said Mr Shah, who does not expect the company to repeat its double-digit earnings growth in the mid-1990s.

Caribbean carrier sale takes off

Canute James looks at state and private efforts to attract investors

BWIA, operated by the state-owned Trinidad and Tobago Airways Corporation, is seeking US$100m as part of an effort to improve its finances and make it more attractive for privatisation.

The first step is a $30m private bond offer to write off part of the company's debt and buy equipment. Mr Joe Esau, the airline's executive chairman, said the Trinidad and Tobago government would secure the issue, which will carry a fixed interest rate of 11¾ per cent and will be convertible after 18 months.

BWIA's efforts to get its financial house in order are being duplicated in other parts of the Caribbean, as governments try to attract private investors as partners or outright purchasers for loss-making airlines.

The Dominican Republic, Jamaica, Cuba and Guyana are seeking private participation in their airlines, while LIAT, a regional commuter airline, is being divested by the 12 governments which own it.

Mr Esau says of the BWIA move: "Arrangements are being made to establish a convertible bond which will provide the funds required to the US, Canada and western Europe with a fleet of 13 aircraft, lost $16.5m in the first half of this year, taking accumulated losses to $97m. It is seeking a partner from a short-list of airlines, said to include British Airways, which will be offered a 30 per cent stake in the company.

State-owned Air Jamaica is also seeking an international carrier as a partner. However, its search, which began over a year ago, has been unsuccessful.

The airline, which operates a fleet of four Airbus 300s and four Boeing 727s, is carrying accumulated losses of just over $40m. The government has also been under pressure to divest in order to honour undertakings to the International Monetary Fund to end budgetary support for non-viable state enterprises.

Mr Mike Fennel, Air Jamaica's president, said the company needed new equity of about US$50m. However he admitted that, given the state of the international airline industry, raising this could prove difficult.

The first state-owned airline in the region which could have a private partner is LIAT which, in addition to its Carib-

The company lost $2.2m in 1989 and 1990, bringing accumulated losses to $13m, and its debt servicing costs amount to $4.5m per year. However, in the first eight months of this year LIAT recorded a net profit of $775,000.

The earlier deficits have had to be met by the governments, which have concluded that the airline must become a joint venture with private business.

The governments are considering a proposal from a consortium based in Barbados, which has offered $15m for a controlling interest in LIAT, and which says it has reached agreement with airlines in Canada and the UK to provide management. Government officials say the airlines are Air Canada and British Airways.

In the Dominican Republic, the Corporacion Dominicana de Aviacion, after a long search, appears to have found a partner in Iberia of Spain. Government officials ended recent talks in Madrid with an announcement that Iberia would take between 35 and 40 per cent in Dominicana de Aviacion. The government intends to keep between 40 and 45 per cent, while the rest will be sold to Dominican investors

Dominicana; the others are Alitalia, Lufthansa and Royal Jordanian.

With its new efforts to expand tourism and increase foreign earnings, the Cuban government is expected to be interested in proposals from foreign companies, such as that from the Canhedo conglomerate of Brazil, either to buy into Cubana de Aviacion or create a joint venture.

The Canhedo group, which has a majority holding in VASP of Brazil, wants to purchase and lease aircraft to fly routes linking Cuba to European countries and to Canada.

The proposal, in which the Canhedo group is willing to commit $800m, with VASP having 60 per cent and Cubana having 40 per cent, is likely to be attractive to the Cuban government because of the hard currency the investment will provide.

There is, however, concern in Cuba that such a deal could hit the tourist industry. Through Cubana, the island's tourism sector controls air and hotel rates and can set them at levels which are competitive with those of neighbouring destinations.

Putting some of this into

Buoyant Treasuries rise on weak car sales data

By Patrick Harverson in New York and Tracy Corrigan and Sara Webb in London

THE US bond market ended the first trading session after the Columbus Day holiday in a positive mood, buoyed by weaker-than-expected early October car sales.

In late trading the benchmark 30-year government bond was up ⅛ at 102⅜ yielding 7.864 per cent. The two-year note was up ⅛ at 100⅜, to yield 5.815 per cent.

It was a rollercoaster day for Treasury prices. They opened firmer across the board on hopes that the Fed would engineer a reduction in the Fed funds rate via some aggressive adding operations during its traditional intervention period around 11.30am.

However, after the deadline passed with no action from the Fed, prices at the long end retreated as the market expressed its disappointment at the lack of a policy ease. That retreat was reversed later, when figures showed a marked decline in the big three car manufacturers' sales during the first 10 days of October.

GOVERNMENT BONDS

The data was seen as evidence of continued weakness in the manufacturing sector and according to analysts, increased the likelihood the Fed would soon engineer a cut in the key Fed funds rate.

■ POLITICAL uncertainty again undermined confidence in the UK gilts market yesterday, when the market was unsettled by rumours about an opinion poll due to be published today. There was speculation the Guardian/Newsnight poll would show an increased lead for the opposition Labour party over the Tories.

Dealers said some foreign holdings were liquidated, while domestic investors have lost their appetite for gilts.

The market closed slightly lower, after economic data earlier in the day had suggested the UK's inflationary outlook was still improving, but signs of economic upturn remain sketchy, with industrial production down 1.5 per cent in August. Because of the uncertain political outlook, the disappointing economic data was viewed as slightly negative for the gilts market.

The long gilt future on the London International Financial Futures Exchange ended ⅛ point lower, at 94⅞.

■ THE Japanese government bond market firmed yesterday, following comments by Japan's International Trade and Industry Minister Mr Eiichi Nakao urging the Bank of Japan to lower the official discount rate.

Mr Nakao said lower interest rates would help to increase domestic demand and reduce Japan's growing trade surplus. His comments followed an announcement that Japan's merchandise trade surplus jumped 41.7 per cent in September from a year earlier to $9.757bn.

The yield on the benchmark No 129 opened at 6 per cent and closed at 5.94 per cent in Tokyo, moving to 5.935 per cent in London trading. Short-term money market rates in Tokyo slipped yesterday, with the overnight unsecured call money rate moving to 6⅜ per cent.

■ THE 2.6 per cent year-on-year rise in French consumer prices in September, the lowest level for French inflation for several years, provided a fillip for the French bond market.

Easier money market rates suggest some optimism on the prospects for a small cut in interest rates, but with the franc at the bottom of the exchange rate mechanism, a further cut may be delayed.

BENCHMARK GOVERNMENT BONDS

		Coupon	Red Date	Price	Change	Yield	Week ago	Month ago
AUSTRALIA		12.000	11/01	112.9548	+0.066	9.94	10.11	10.63
BELGIUM		9.000	06/01	99.5000	+0.100	9.07	9.10	9.17
CANADA *		9.750	12/01	104.7000	+0.300	9.03	8.95	9.50
DENMARK		9.000	11/00	100.4000	+0.050	8.93	9.00	9.11
FRANCE	BTAN	8.500	11/96	98.3342	+0.158	8.91	9.02	9.00
	OAT	9.500	01/01	104.5400	+0.200	8.75	8.87	8.86
GERMANY		8.750	08/01	103.2000	-0.050	8.26	8.29	8.38
ITALY		12.500	03/01	100.7400	+0.380	12.74	12.91	13.04
JAPAN	No 119	4.800	06/99	92.4244	+0.189	6.26	6.29	6.41
	No 129	6.400	03/00	102.8133	+0.316	5.94	5.96	6.08
NETHERLANDS		8.500	03/01	98.6100	-0.090	8.71	8.70	8.77
SPAIN		11.800	07/96	101.2300	+0.230	11.50	11.52	11.45
UK GILTS		10.000	11/96	100-29	-	9.77	9.71	9.61
		10.000	02/01	101-16	+1/32	9.75	9.67	9.59
		9.000	10/08	95-50	-5/32	9.54	9.49	9.41
US TREASURY *		7.875	08/01	103-01	+10/32	7.43	7.38	7.64
		8.125	08/21	103-01	+12/32	7.85	7.78	7.92

London closing. *New York closing session. Prices: US, UK in 32nds, others in decimal. Yields: Local market standard. Technical Data/ATLAS Price Sources

Taiwan to expand foreign exchange market

By Peter Wickenden in Taipei

TAIWAN plans to expand its foreign exchange market by allowing trading between the D-Mark and the US dollar and between the yen and the US dollar early next year.

Trading is currently only between the New Taiwan dollar, which is not an international currency and the US dollar and averages about US$100m daily.

Although the exchange rate floats freely in principle, intervention by Taiwan's Central Bank of China frequently accounts for a significant proportion of turnover.

The state-supported Taipei Foreign Exchange Market Development Foundation said yesterday it would open dollar-D-Mark and dollar-yen trading once a voice-box dealing system was installed in Taipei banks. Dealing is currently done by telephone.

If a three-month trial period proves satisfactory, the foundation may then allow D-Mark-yen trading and link the Taipei market electronically to money brokers in Hong Kong and Singapore.

The country's foreign currency call-loan market was linked to these two centres earlier this year, facilitating exchange of quotes and trading data.

FT/AIBD INTERNATIONAL BOND SERVICE

Listed are the latest international bonds for which there is an adequate secondary market. Closing prices on October 15

U.S. DOLLAR STRAIGHTS	Issued	Bid	Offer	Chg. day	Yield
ABBEY NATIONAL 8 7/8 93	150	103	103½		6.52
ALBERTA PROVINCE 9 3/8 95	600	107¼	107½		7.23
AUSTRIA 8 1/2 00	400	103	103½	-⅛	7.98
BANK OF TOKYO 8 3/8 96	100	102¼	102¾	-⅛	7.74
BELGIUM 9 5/8 98	250	108¾	109¼		7.86
BFCE 7 3/4 97	150	101	101½	-⅛	7.50
BNP 8 5/8 94	300	104½	104¾		6.79
[illegible]					

OTHER STRAIGHTS	Issued	Bid	Offer	Chg. day	Yield
BAYERISCHE VEREINS INT 7 94 LFr	600	94	95		9.55
KREDIETCORP 7 93 LFr	1000	95¾	96¾		9.55
WORLD BANK 8 96 LFr	1000	96¼	97½		9.06
ABN AMRO HOLDING 9 1/4 01 Fl	750	102¼	102⅝		8.87
UNILEVER 9 00 Fl	500	103½	103¾		8.41
BCE INC 9 5/8 93 C$	300	101¼	101½		8.74
BELL CANADA 10 5/8 99 C$	150	104¾	105¼		9.69
[illegible]					

* No information available - previous day's price
‡ Only one market maker supplied a price

STRAIGHT BONDS: The yield is the yield to redemption of the bid-price; the amount issued is in millions of currency units. Chg. day=Change on day.

FLOATING RATE NOTES: Denominated in dollars unless otherwise indicated. Coupon shown is minimum. Spread=Margin above six-month offered rate (‡three-month §above mean rate) for US dollars. C.cpn=The current coupon.

CONVERTIBLE BONDS: Denominated in dollars unless otherwise indicated. Cnv. price=Nominal amount of bond per share expressed in currency of share at conversion rate fixed at issue. Prem=Percentage premium of the current effective price of acquiring shares via the bond over the most recent price of the shares.

Fokker considers equity offering

By Sara Webb in London and Ronald van de Krol in Amsterdam

FOKKER, the Dutch aerospace company, is considering launching a $200m global equity offering to help pay for the development of new aircraft.

Fokker wants to expand its existing range with the introduction of two new lines of jet aircraft – a 70-seater aircraft and a 130-seater aircraft.

The company says potential purchasers in the US, Europe and the Far East have expressed an interest in buying the jet aircraft and it hopes to sign memoranda of intent with launch customers by the end of the year.

INTERNATIONAL EQUITY ISSUES

The equity offering would be Fokker's first since 1988, when it made two rights issues to bolster its capital. This followed a government rescue of Fokker in 1987 which left the Dutch state with 32 per cent of the aircraft builder's share capital.

Fokker is hoping to draw partly on a revolving government development fund to finance the launch of its two proposed aircraft. But it would clearly also need to raise funds itself.

Once the agreements with launch customers have been signed, Fokker will proceed with its global equity offering in Europe and in the US, where it will probably use a 144A placement. UBS Philips & Drew has been appointed global lead manager.

The company's use of a 144A placement fits in with its strategy of raising its profile in the US, the world's single biggest aviation market. In April, Fokker become one of two dozen Dutch companies which have American depositary receipt programmes on US stockmarkets.

Fokker specialises in commuter aircraft and regional jets, producing 50-seater prop jet and 100-seater fan jet aircraft. It hopes to launch the 70-seater aircraft first, as suitable engines have been developed already, whereas the engines for the 130-seater aircraft currently being developed by Rolls-Royce are unlikely to be ready before 1996. The aircraft will be a larger 130-seat version of the Fokker 100 jet, with new landing gear and new engines.

In the past Fokker has announced its intentions to attract a partner to share development costs on its new projects. However, yesterday Fokker said: "We think we are strong enough to do it on our own."

The company is listed on the stock exchanges in Amsterdam, Frankfurt, Basle, Geneva and Zurich and has a market capitalisation of just over Fl 1bn ($520m).

It reported a first-half net profit of Fl 42.2m on turnover of Fl 1.54bn. Full-year net profits are expected to match 1990's Fl 83.4m. The aircraft industry is experiencing difficulties as a result of the Gulf war, recession and the retrenchment of big global airlines.

Japan may cut fees on domestic corporate issues

JAPAN'S Ministry of International Trade and Industry (MITI) may lower fees on domestic corporate bond issues to help firms raise funds in the face of heavy warrant bond redemptions expected over the next few years, Reuter reports from Tokyo.

A ministry official said the fees the ministry is studying include bank commissions for various administrative services and brokers' underwriting fees, the official said.

These fees are higher than similar fees in the Euromarket, and their complex structure has dampened activity in the local capital market, the official said.

The MITI study is in line with moves by the Ministry of Finance and the Justice Ministry to stimulate the domestic capital market, the MITI official said.

● THE Tokyo Stock Exchange (TSE) may raise membership fees to make up operating losses, Reuter reports.

TSE chairman Mr Minoru Nagaoka said: "I can't think of any other way but to increase the burden on our members (to secure income)." He stressed the TSE has not yet discussed raising fees or approached its members about the idea.

The TSE had a deficit of Y2.71bn in the six months to end-September, 1991, against Y3.6bn in the same period a year ago. The TSE received Y6.12bn in membership fees from its 124 members in interim period of 1991-92, a TSE spokesman said.

INTERNATIONAL CAPITAL MARKETS

Flurry of dollar issues tests investors' appetite

By Simon London

THREE fixed-rate international bond issues totalling $1bn were launched yesterday, testing investors' appetite for Eurodollar bonds following a week of volatility in the secondary market. All three deals were lead managed by J.P. Morgan Securities.

INTERNATIONAL BONDS

The largest issue came from Crédit Foncier, the French state-backed financial institution, which launched a $500m deal maturing 2002. The bonds carry a coupon 8 per cent and were priced to yield 49 basis points more than US Treasury securities.

The deal follows large 10-year issues from sovereign-quality borrowers including KFW, the German state-backed lender and Belgium. The deal was also first Eurodollar deal by a French state agency borrower since the explicit guarantee of the government was withdrawn in January.

Some participants reported weak demand, others had no problem in selling their allocations, underlining that demand for long-dated dollar bonds is now more patchy.

However, the deal was seen as fairly priced and traded at around the fixed re-offer price of 99.40, with the yield spread remaining close to 49 basis points.

Fortis, a joint venture insurance group formed between Amev of the Netherlands and AG Group of Belgium, chose the five-year maturity for its debut in the international bond market. The $300m deal will be priced today to yield between 80 and 85 basis points more than US Treasury bonds.

The deal follows Prudential's $300m 10-year bond issue last week, which was launched at a yield spread of 75 basis points, but widened to a spread of 85 basis points soon after launch. Some syndicate managers said the Prudential deal made some investors wary of buying insurance company bonds.

Against this, yesterday's issue was launched at a shorter maturity and a wider yield spread than the Prudential deal. The lead manager reported strong buying from continental European investors, following presentations to investors last week.

Like Prudential, Fortis has insurance operations in the US and had a natural requirement for dollar funding.

Nippon Telegraph & Telephone also chose the shorter five-year maturity, coming with a $250m deal. The paper carries a 7¼ per cent coupon and was priced to yield 40 basis points over US Treasuries.

Some syndicate officials said the yield spread was a little tight, but buying was supported by retail investors in Europe and the Far East. The deal traded up from a fixed re-offer price of 99.73 to stand at 99.76 bid, where the yield spread is 37 basis points over US Treasury bonds.

Elsewhere, **Bacob**, the second-largest Belgian savings bank, offered investors a hedge against the future direction of US interest rates by launching a $150m three-year floating rate issue. The deal, lead managed by UBS Phillips & Drew, pays ⅛ per cent over the three-month London interbank offered rate and was re-offered to investors at the fixed price of 99.92.

The deal was reported to be well received, underlining that there are many sceptics about the future scope for monetary easing in the US.

NEW INTERNATIONAL BOND ISSUES

Borrower	Amount m.	Coupon %	Price	Maturity	Fees	Book runner
US DOLLARS						
Credit Foncier de France(a)†	500	8	99.40	2002	32.5/12.5bp	JP Morgan Secs.
Nip.Telegraph & Telephone(a)†	250	7¼	101.355	1996	1⅞/1.725	JP Morgan Secs.
Bacob Overseas(b)‡†	150	(b)	100	1994	0.18/0.10	UBS Phillips & Drew
ECUs						
Maruzen(a)Φ	80	6⅛	100	1995	2¼/1½	Nikko Secs.
FRENCH FRANCS						
Fiat Finance & Trade(a)†	800	9½	101⅛	1995	1⅝/1⅛	Credit Lyonnais
IBM Int.Finance NV(c)†	350	10	104.09	1997	-	CCF
SWISS FRANCS						
Chuo Paperboard(d)★★§	50	4½	100	1996	-	Nikko (Switz) Fin.

★★Private placement. §Convertible. ΦWith equity warrants. ‡Floating rate note. †Final terms. a) Non-callable. b) Coupon pays ⅛% over 3-month Libor. Non-callable. c) Fungible with existing FFr1bn deal. Non-callable. d) Put option 31/3/94 at 106⅝% to yield 7.092%.

German 'crisis meeting' over tax plan

THE German government committee wrestling with the sensitive task of reintroducing withholding tax on investment income will hold a "crisis meeting" on November 7, according to committee officials, writes Christopher Parkes in Bonn.

It is under orders to produce a recommendation for approval by the coalition leaders at talks scheduled for November 11, but there were strong signs yesterday it was having difficulties drafting a scheme which will not run into trouble in the constitutional court.

The government was thrown into confusion in June by a court ruling that the current system, under which investors declare income voluntarily, was unconstitutional. The court told Bonn tighter controls had to be in place by the end of 1992.

It estimated 50 per cent of taxable investment income currently escapes the tax net.

According to Mr Hermann Rind, a committee member, tax-free investment income allowances could be as high as DM8,000 for a single person and DM10,000 for married couples.

A squeeze in the interbank loans market

Simon London reports on a marked deceleration in lending between banks

While the "credit crunch" facing companies has grabbed the attention of politicians and regulators in recent months, banks have quietly reduced lending to other banks.

Such a squeeze in the interbank loans market could both increase the vulnerability of smaller banks and, in the longer term, reduce the capacity of the banking system to provide credit to outside customers.

The Bank for International Settlements, the Basle-based clearing house owned by the world's biggest central banks, first noted "a marked deceleration" in lending between banks during the autumn of last year.

This year the situation has become markedly worse. The Bank of England, in its last quarterly bulletin, pointed to "an unprecedented contraction in cross-border, interbank business" during the first quarter of this year.

Interbank assets of banks in the world's leading economies fell by $79bn in the three months to end-March.

Full international figures for the second quarter have not yet been released by the BIS, but they are likely to show a further contraction. Bank of England figures show a $37.3bn fall in interbank lending in London alone during the three months to end-June.

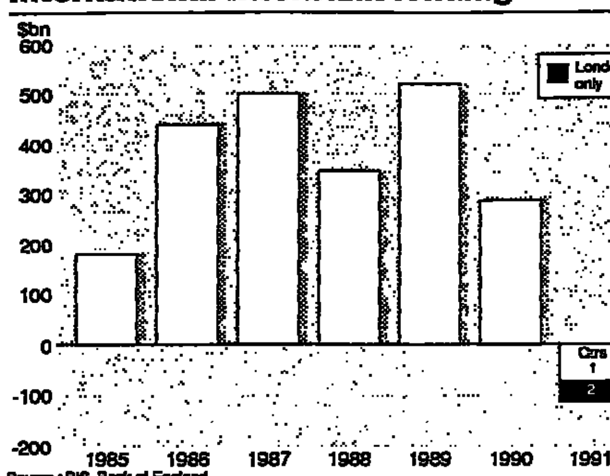
Moreover, these statistics may actually understate the extent of the contraction. They mask the fact that institutions have stepped up lending to their international offices – in preference to channelling funds to other banks.

The interbank credit squeeze is more than just a technical problem for banks. A squeeze in interbank loans can restrict banks' capacity to lend to companies.

The market is an important source of liquidity, allowing banks to balance assets and liabilities efficiently. If interbank liquidity disappears, a ready source of funding is taken away.

Asset growth may have to be curtailed as a result.

International interbank lending



Source: BIS, Bank of England

The BIS commented that: "Strains in interbank relationships seem to have led to a temporary narrowing of the intermediation capacity of the international banking market."

In other words, the slowdown in interbank lending and the credit crunch facing companies are directly related.

Bankers cite two main causes of the contraction in interbank activity:

- Banks' desire to shrink assets to maintain capital adequacy ratios and to free capital for other purposes. Banks looking to shrink their assets quickly can do so by cutting overnight interbank lending.

However, bankers note that an institution following this route has to "peddle hard" to free capital for other purposes. Loans to other banks take up only one-fifth the capital of loans to companies under international capital adequacy regulations. Hence every £1bn of funds pulled out of the interbank market allows just £200m new corporate lending.

- The declining credit quality of some banks against a background of loan losses. Hence, the biggest pull-back has been from interbank lending to banks with a weak credit quality.

The BIS figures show that the biggest slow-down in interbank lending has been between banks in Japan and the US. Here is the confluence of the two factors: Japanese banks shrinking their balance sheets to conserve capital and the declining credit quality of some US institutions.

UK banks are by no means immune from these pressures. Figures for the London market show that British-owned banks cut interbank lending by $10bn in the second quarter.

During the 1980s the interbank market expanded substantially faster than banks' capital and other financial aggregates. This caused some concern among regulators.

In 1987 the BIS said: "The interbank market's potential for transmitting destabilising influences across the world should not be underestimated. It is important that the market's future development should be carefully monitored, from both the macro-economic and the prudential points of view."

The fact that some banks' deposits largely consist of money from other banks, increases the fragility of the banking system, as regulators discovered when Continental Illinois and Banco Ambrosiano collapsed. An important source of liquidity can disappear, literally, overnight.

The most vulnerable banks are those with no retail deposit base – such as the US money centre banks – leaving them wholly reliant on "wholesale" sources of funding.

The Bank of England commented that the effects would be to disadvantage "smaller and less diverse" banking operations, particularly those without a large retail deposit base.

The squeeze is by no means serious enough to threaten the collapse of any major financial institution. However, it has added to the problems of second-tier financial institutions, forcing them to pay more for short-term funds.

Bankers also ask whether the decline in interbank liquidity is serious enough to push interbank money rates higher. This would lead directly to a higher cost of funds for companies, since corporate loans are generally priced at a margin over the London interbank offered rate.

There is no consensus on the question as yet. In countries with an inverse yield curve, interbank rates at the very shortest maturities may have been held down during the 1980s by the explosion of interbank activity. Banks could borrow at, say, six months and lend overnight at a higher rate.

This "round tripping" is now much less prevalent. Overnight money rates may be pushed higher as a result.

But it is an open question whether benchmark three and six-month money rates will rise as liquidity seeps away from the interbank loans market. The answer probably depends on whether the interbank squeeze reflected in official statistics has already happened or only just begun.

TRW to provide consumers with free credit reports

By Patrick Harverson in New York

TRW, one of the largest credit reporting agencies in the US, has announced that from next year it will provide consumers with free annual reports of their credit histories.

The move represents an important victory for consumer rights campaigners, who have attacked the main US credit reporting agencies for maintaining inaccurate credit histories and for selling data about consumers to companies that send out junk mail.

The agencies have also been criticised for failing to ensure the confidentiality of all their credit reports and for not responding promptly to complaints about inaccurate records. Earlier this year 14 US states filed lawsuits against TRW alleging it failed to maintain accurate records of consumer credit histories.

The other two big compilers of personal financial information in the US, Trans Union of Chicago and Atlanta-based Equifax, have so far resisted calls for improved access to their credit reports. Until TRW's decision, all the agencies followed a policy of charging as much as $20 to supply consumers with records of their credit histories.

TRW's announcement is an attempt to placate consumer activists, who have widespread support in Washington. Senate hearings on the credit-information industry are due to start today and will consider wholesale changes to the 1970 Fair Credit Reporting Act, which regulates the industry.

The provision of free reports is expected to cost TRW about $26m a year.

In August the company said that it was setting up freephone lines for consumers who had been denied credit based on information provided by TRW.

- TRW yesterday reported a 30 per cent fall in third-quarter earnings to $32m. The group said weak market conditions across all its main businesses and a rise in the effective tax rate were behind the fall.

Warsaw plans zloty contract

THE Warsaw Stock Exchange is studying the introduction of a futures contract on the zloty, which may be introduced next year, Reuter reports.

Mr Wieslaw Rozlucki, Warsaw exchange managing director, said turnover on the Warsaw exchange was equivalent to around $1m per session. There are eight quoted companies. Mr Rozlucki plans to sign a contract with the French Stock Exchanges Association, which will advise on upgrading the computerisation of the exchange.

LONDON MARKET STATISTICS

FT-ACTUARIES SHARE INDICES

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	EQUITY GROUPS & SUB-SECTIONS (Figures in parentheses show number of stocks per section)	Tuesday October 15 1991: Index No.	Day's Change %	Est. Earnings Yield% (Max.)	Gross Div. Yield% (Act at (25%))	Est. P/E Ratio (Net)	xd adj. 1991 to date	Mon Oct 14: Index No.	Fri Oct 11: Index No.	Thu Oct 10: Index No.	Year ago (approx): Index No.
1	CAPITAL GOODS (182)	823.09	-0.3	9.37	5.89	13.34	30.83	825.59	822.43	822.36	708.83
2	Building Materials (23)	996.74	-0.7	7.57	6.25	17.36	41.32	1004.25	995.74	998.90	967.16
3	Contracting, Construction (31)	1075.47	-0.6	8.69	6.78	15.73	49.81	1081.95	1082.96	1089.01	1153.63
4	Electricals (11)	2537.93	-1.0	8.63	5.20	14.67	84.23	2563.31	2568.32	2562.44	1880.63
5	Electronics (25)	1748.55	....	10.93	5.45	11.57	50.62	1748.96	1741.95	1736.16	1547.68
6	Engineering-Aerospace (8)	355.62	-1.5	15.64	7.25	7.72	16.48	361.01	357.82	358.06	409.20
7	Engineering-General (43)	490.17	+0.2	9.97	5.18	12.38	16.55	489.42	488.33	487.74	365.66
8	Metals and Metal Forming (9)	427.89	-1.0	15.37	8.28	7.90	17.48	432.37	434.32	435.44	405.38
9	Motors (12)	342.21	-0.2	6.94	7.04	19.71	14.65	343.01	340.07	335.11	273.92
10	Other Industrial Materials (20)	1609.39	+0.3	7.86	5.07	15.13	56.92	1605.20	1599.89	1601.48	1177.02
21	CONSUMER GROUP (189)	1544.44	+0.3	7.41	3.62	16.69	33.59	1539.13	1531.49	1539.17	1188.21
22	Brewers and Distillers (22)	1931.48	-0.3	8.00	3.48	15.21	38.33	1936.51	1933.81	1946.28	1477.13
25	Food Manufacturing (19)	1205.03	+0.3	9.41	4.15	13.12	29.98	1201.80	1198.52	1211.45	1011.81
26	Food Retailing (17)	2467.73	+0.2	9.02	3.42	14.50	50.36	2463.06	2438.02	2469.93	2340.44
27	Health and Household (22)	3724.43	+0.7	5.43	2.54	21.13	61.57	3697.32	3662.08	3688.69	2376.25
29	Hotels and Leisure (24)	1316.20	....	7.74	5.35	15.97	45.61	1315.79	1317.80	1320.15	1192.32
30	Media (26)	1538.83	+0.6	6.99	4.61	18.68	44.30	1529.49	1522.21	1514.72	0.00
31	Packaging, Paper & Printing (17)	762.12	+0.6	7.37	4.29	16.46	22.51	757.46	758.06	761.01	487.33
34	Stores (33)	996.99	+0.5	7.46	3.72	17.58	19.48	992.07	986.26	983.25	807.60
35	Textiles (9)	626.34	+1.2	7.38	4.97	17.19	15.49	619.11	624.71	623.65	409.42
40	OTHER GROUPS (109)	1277.31	-0.6	9.41	5.08	13.36	35.79	1285.45	1282.44	1288.14	966.27
41	Business Services (12)	1401.75	-0.2	7.62	4.66	16.32	34.95	1404.79	1404.72	1410.03	0.00
42	Chemicals (21)	1456.19	-0.7	6.93	4.97	17.83	48.39	1466.21	1465.03	1462.20	995.19
43	Conglomerates (10)	1498.76	+0.4	9.65	7.00	12.55	38.76	1493.48	1475.17	1481.59	1313.39
44	Transport (13)	2330.38	+0.7	7.31	4.88	16.94	68.02	2315.09	2331.98	2349.14	1859.95
45	Electricity (16)	1221.30	-1.2	14.38	5.33	9.07	27.53	1236.20	1249.00	1248.72	0.00
46	Telephone Networks (4)	1575.72	-1.5	9.51	3.85	13.76	28.34	1599.00	1591.35	1606.21	1072.94
47	Water (10)	2384.88	-1.0	17.13	6.45	6.46	118.37	2409.95	2388.73	2422.36	1925.03
48	Miscellaneous (23)	1859.25	-0.1	5.31	5.29	26.09	69.91	1861.01	1850.71	1848.29	1467.38
49	INDUSTRIAL GROUP (480)	1282.28	-0.1	8.43	4.52	14.79	34.28	1283.54	1278.55	1283.49	1003.78
51	Oil & Gas (20)	2441.88	+1.1	10.70	5.69	12.35	93.60	2415.02	2399.38	2424.46	2320.20
59	500 SHARE INDEX (500)	1381.38	....	8.71	4.67	14.43	38.99	1380.68	1374.87	1381.29	1111.46
61	FINANCIAL GROUP (91)	803.67	....	-	5.82	-	31.43	804.13	792.55	798.64	690.56
62	Banks (9)	955.97	+0.4	4.36	5.58	43.37	37.46	951.95	935.71	944.09	738.30
65	Insurance (Life) (7)	1467.40	-0.6	-	5.77	-	63.68	1476.89	1452.21	1469.83	1318.24
66	Insurance (Composite) (6)	604.54	-1.5	-	7.26	-	30.72	613.62	601.20	607.01	594.65
67	Insurance (Brokers) (9)	1132.64	+0.5	7.25	5.98	18.05	43.14	1127.16	1115.41	1127.39	797.66
68	Merchant Banks (7)	469.84	+0.7	-	4.49	-	13.08	466.50	472.98	473.24	344.87
69	Property (36)	921.05	+0.1	5.93	5.08	23.87	23.78	919.76	908.36	909.88	925.22
70	Other Financial (17)	258.86	....	11.07	7.10	11.35	10.86	258.91	259.53	259.38	245.06
71	Investment Trusts (70)	1231.33	+0.5	-	3.51	-	27.02	1224.76	1228.56	1238.49	995.18
99	ALL-SHARE INDEX (661)	1241.92	....	-	4.79	-	36.63	1241.30	1234.68	1241.04	1007.88

	Index No.	Day's Change	Day's High (a)	Day's Low (b)	Oct 14	Oct 11	Oct 10	Oct 9	Oct 8	Year ago
FT-SE 100 SHARE INDEX‡	2576.7	+2.2	2588.0	2572.8	2574.5	2555.0	2570.8	2584.1	2599.5	2083.6

FIXED INTEREST

	PRICE INDICES	Tue Oct 15	Day's change %	Mon Oct 14	Accrued interest	xd adj. 1991 to date
	British Government					
1	Up to 5 years (28)	121.78	+0.03	121.74	1.57	9.94
2	5-15 years (27)	133.88	+0.02	134.15	1.36	11.50
3	Over 15 years (9)	142.94	+0.02	142.90	1.95	10.60
4	Irredeemables (6)	160.27	+0.15	160.02	4.00	8.83
5	All stocks (70)	132.45	+0.03	132.58	1.52	11.01
	Index-Linked					
6	Up to 5 years (2)	166.09	+0.01	166.07	0.15	3.16
7	Over 5 years (9)	149.27	+0.04	149.21	0.53	3.83
8	All stocks (11)	150.46	+0.03	150.41	0.48	3.81
9	Debs & Loans (68)	113.20	-0.29	113.53	2.02	8.53

	AVERAGE GROSS REDEMPTION YIELDS		Tue Oct 15	Mon Oct 14	Year ago (approx.)
	British Government				
1	Low	5 years	8.73	8.73	10.68
2	Coupons	15 years	9.49	9.49	10.96
3	(0%-7¾%)	20 years	9.49	9.49	10.96
4	Medium	5 years	9.77	9.77	11.64
5	Coupons	15 years	9.63	9.63	11.39
6	(8%-10¾%)	20 years	9.58	9.58	11.30
7	High	5 years	9.97	9.97	11.74
8	Coupons	15 years	9.71	9.71	11.61
9	(11%-)	20 years	9.62	9.63	11.50
10	Irredeemables†		9.67	9.68	11.06
	Index-Linked				
11	Inflation rate 5%	Up to 5yrs.	3.79	3.78	4.24
12	Inflation rate 5%	Over 5 yrs.	4.20	4.20	4.41
13	Inflation rate 10%	Up to 5 yrs.	3.12	3.12	2.95
14	Inflation rate 10%	Over 5 yrs.	4.01	4.01	4.21
15	Debs &	5 years	11.35	11.29	13.90
16	Loans	15 years	11.18	11.13	12.83
17		25 years	11.01	10.97	12.40

‡Opening index 2587.0; 9 am 2582.1; 10 am 2583.3; 11 am 2575.8; Noon 2577.3; 1 pm 2576.9; 2 pm 2577.5; 2.30 pm 2578.6; 3 pm 2576.2; 4.10 pm 2575.3; (a) 8.40am (b) 3.36pm † Flat yield. Highs and lows record, base dates, values and constituent changes are published in Saturday issues. A list of constituents is available from the Publishers, The Financial Times, Number One, Southwark Bridge, London SE1 9HL. The FT-ACTUARIES SHARE INDICES SERVICE covers a range of electronic and paper-based products relating to these indices. These are available by subscription from FINSTAT, Ibex House, 42-47 Minories, London EC3N 1DY. Tel: 071-702 0991.

RISES AND FALLS YESTERDAY

	Rises	Falls	Same
British Funds	21	19	43
Corporations, Dominion and Foreign Bonds	6	3	11
Industrials	280	268	945
Financial and Properties	211	85	465
Oils	34	13	43
Plantations	0	2	8
Mines	51	21	81
Others	78	17	48
Totals	681	428	1,644

LONDON RECENT ISSUES

EQUITIES

[illegible]

FIXED INTEREST STOCKS

[illegible]

RIGHTS OFFERS

[illegible]

a Annualised dividend. b Figures based on prospectus estimates. d Dividend rate paid or payable on part of capital, cover based on dividend on full capital. g Assumed dividend and yield. q Earnings based on preliminary figures. u Forecast or estimated annualised dividend rate, cover based on previous year's earnings. F Dividend and yield based on prospectus or other official estimates for 1990-91. H Dividend and yield based on prospectus or other official estimates for 1991. L Estimated annualised dividend, cover and p/e based on latest annual earnings. M Dividend and yield based on prospectus or other official estimates for 1991-92. N Dividend and yield based on prospectus or other official estimates for 1992. Q Gross. R Forecast annualised dividend, cover and p/e ratio based on prospectus or other official estimates. W Pro Forma figures. ‡ Offered to holders of ordinary shares as a "rights". † Introduction. § Placing price. †† Reintroduction. ‡ Unlisted securities market. ◆ Issued in connection with reorganisation, merger or takeover. pm Price at a premium.

TRADITIONAL OPTIONS

- First Dealings Oct. 7
- Last Dealings Oct. 18
- Last Declarations Jan. 9
- For settlement Jan. 20

For rate indications see end of London Share Service

Calls in Allied-Lyons, Ferranti, Ml. Labs., Thames TV, Tyne Tees TV and Ultramar.

LONDON TRADED OPTIONS

[illegible]

Calls 16,936 Puts 11,687
FT-SE Index Calls 2,358 Puts 4,583
Euro FT-SE Calls 6 Puts 27
Eurotrack 100 Index Calls 0 Puts 0
*Underlying security price. † Long dated expiry months.
Premiums shown are based on middle prices.

This document is issued in compliance with the requirements of The International Stock Exchange of the United Kingdom and the Republic of Ireland Limited ("the London Stock Exchange"). The issue of this document has been authorised by the London Stock Exchange pursuant to section 154 of the Financial Services Act 1986 without approval of its contents.

This document contains the terms and conditions of application, notes on the procedure for application, an application form and statements of a factual nature drawn from the listing particulars dated 15th October, 1991 (the "Listing Particulars") which have been published by The Frost Group PLC. (the "Company" or "Frost") and should be read in conjunction with such Listing Particulars which alone contain full details of the history and business of the Group. The Directors of the Company are satisfied that this document contains a fair summary of the key information set out in the Listing Particulars. Application has been made to the London Stock Exchange for the whole of the ordinary share capital of the Company, issued and now being issued, to be admitted to the Official List. It is expected that renounceable letters of allocation will be despatched on 30th October, 1991, that the ordinary shares will be admitted to the Official List on 31st October, 1991 and that dealings will commence on 31st October, 1991. The application list for the ordinary shares now being offered will open at 10.00 a.m. on 23rd October, 1991 and will close as soon thereafter as Credit Lyonnais Laing may determine. As part of the Issue arrangements, eligible shareholders in Norfolk House Group plc will be invited to apply as priority applicants for up to 1,955,148 ordinary shares, representing 10 per cent. of the ordinary shares comprising the Issue. Definitions set out in the Listing Particulars shall also apply in this document unless the context requires otherwise.

THE FROST GROUP PLC.

(Registered in England and Wales under the Companies Acts 1862 to 1890 with no. 32450)

Offer and Placing

by

Credit Lyonnais Laing

of

19,551,454 ordinary shares of 25p each

at 235p per share

payable in full on application

of which 10,753,300 are being offered to the public and 8,798,154 are being placed

16th October, 1991

SHARE CAPITAL

The share capital of the Company following the Issue will be as follows:—

Authorised Number	*Authorised* Amount		*Issued and now being issued, fully paid* Number	*Issued and now being issued, fully paid* Amount
28,000,000	£7,000,000	ordinary shares of 25p each	19,551,454	£4,887,863.50

The ordinary shares will rank *pari passu* in all respects and will rank in full for all dividends and other distributions hereafter declared, made or paid.

INDEBTEDNESS

At the close of business on 26th September, 1991, the Company and its subsidiaries had outstanding secured bank loans of £10,590,000 and a secured indemnity of £1,000,000 in favour of the Group's bankers in respect of a guarantee of certain of the Group's obligations. In addition, the Group had at that date a contingent liability of £2,487,658 in respect of trading stamps issued but not redeemed.

Save as aforesaid and apart from intra-group liabilities, neither the Company nor any of its subsidiaries had, at that date, any loan capital outstanding, or created but unissued, or any term loans or any other borrowings or indebtedness in the nature of borrowing, including bank overdrafts and liabilities under acceptances (other than normal trade bills) or acceptance credits, mortgages, charges, hire purchase or financial lease commitments, guarantees or other material contingent liabilities.

At the same date the Group had cash balances totalling £1,403,213.

EXPECTED TIMETABLE

Completed Application Forms and payment in full relating to the Offer to be received by	10.00 a.m. on Wednesday, 23rd October, 1991
Basis of allocation announced by	Thursday, 24th October, 1991
Despatch of Letters of Allocation on	Wednesday, 30th October, 1991
Dealings to commence on	Thursday, 31st October, 1991

AVAILABILITY OF LISTING PARTICULARS

Particulars of the Company will be included in the Companies Fiche Service available from Extel Financial Limited, Fitzroy Street, London EC2A 4DL from 3 p.m. on 17th October, 1991. Copies of the Listing Particulars may be obtained by collection only during usual business hours up to and including 18th October, 1991 from the Company Announcements Office at 46–50 Finsbury Square, London EC2 and during usual business hours on any weekday (Saturday and public holidays excepted) up to and including 30th October, 1991 from:

Credit Lyonnais Laing,
Broadwalk House,
5 Appold Street,
London EC2A 2DA.

The Frost Group PLC.,
Walton Lodge,
Walton Street,
Aylesbury,
Buckinghamshire
HP21 7QY.

R. Raphael & Sons PLC,
Walton Lodge,
Walton Street,
Aylesbury,
Buckinghamshire
HP21 7QY.

Lloyds Bank Plc,
Registrar's Department,
Issue Section, P.O. Box 1100,
2nd Floor, Bolsa House,
80 Cheapside,
London EC2V 6EE.

and at the following branches of Lloyds Bank Plc:

Guildford:
147 High Street,
Guildford GU1 3AG.

Birmingham:
125 Colmore Row,
Birmingham B3 3AD.

Leeds:
6-7 Park Row,
Leeds LS1 1NX.

Bristol:
55 Corn Street,
Bristol BS99 7LE.

Liverpool:
India Buildings,
Water Street,
Liverpool L69 2BT.

Manchester:
53 King Street,
Manchester M60 2ES.

Newcastle Upon Tyne:
102 Grey Street,
Newcastle Upon Tyne,
NE99 1SL.

Edinburgh:
113/115 George Street,
Edinburgh EH2 4TF.

Credit Lyonnais Laing is a member of the London Stock Exchange and The Securities and Futures Authority Limited.

Issue statistics

Issue Price	235p
Number of ordinary shares being offered/placed:	
—on behalf of the Company	5,106,382
—on behalf of Norfolk House	14,445,072
Number of ordinary shares in issue following the Issue	19,551,454
Market capitalisation at the Issue Price	£45.95 million

Trading record

The information in the following table has been extracted from the Accountants' Report set out in the Listing Particulars:

	Year ended 31st December, 1986 £'000	1987 £'000	1988 £'000	1989 £'000	1990 £'000	*6 months ended 30th June,* 1991 £'000
Turnover	57,947	40,672	56,623	75,302	101,479	*38,913*
Profit on continuing activities before taxation	1,662	2,031	3,174	4,606	4,753	*1,259*
Earnings per share (continuing activities only)	9.6p	11.2p	16.4p	23.2p	24.2p	*7.1p*
Dividends per share	5.25p	7.00p	9.25p	13.00p	—	—

Dividends

While the Company was listed, it pursued a progressive dividend policy of distributing approximately half of the Group's net profits after taxation. This policy was not followed in respect of 1990 as the Company was a wholly-owned subsidiary of Norfolk House at its year end. It is the Board's intention that this policy should be adopted once more in respect of 1992 and subsequent years. It is the Board's intention to recommend in respect of the year ending 31st December, 1991, in the absence of unforeseen circumstances, a final dividend of 2p (net of associated tax credit) per ordinary share for payment in July 1992.

Management Incentives

James Frost has been granted an option in respect of up to 1,955,000 ordinary shares, which may be exercised between 15th October, 1996 and 14th October, 1998. The exercise of the option is subject to the progressive real growth of the Company's earnings per share over the five year period to 31st December, 1996. A series of targets for earnings per share have been set for each year. To achieve the exercise of the option over the maximum number of ordinary shares (approximately 10 per cent. of the Company's issued share capital immediately after the Issue), the Company's earnings per share in 1992 will have to be 23.36p or more per share and the targets in subsequent years require 18 per cent. annual compound growth from this base, the target in each case also being increased by the rate of inflation for the year. Thus, to achieve the maximum exercise, the Company's earnings per share would have had to advance steadily to at least 45.29p, adjusted for inflation, by 1996.

The option also sets two lower sets of targets under which the option could be capable of exercise over 4.5 per cent. and 2 per cent. respectively of the Company's issued share capital immediately after the Issue. To achieve these maxima, earnings per share of 21.81p and 20.77p per share would be required in 1992 with 14 per cent. and 10 per cent. real annual compound growth respectively in the targets thereafter from 1992 to 1996.

The Company has also adopted a share option scheme which, the Directors believe, will encourage and recognise the commitment of senior employees to the Group's profitable development.

KEY INFORMATION

The following information has been extracted from, and should be read in conjunction with, the full text of the Listing Particulars.

The Business

Frost is the holding company of a group whose principal activity is retailing petrol from its mainly freehold and long leasehold petrol filling stations. Petrol is supplied to the Group under a small number of short-term supply agreements with oil companies. This activity is complemented by a sales promotion business, principally based on the "Blue Chip" trading stamp promotion, which encourages customer loyalty in the sale of petrol. The Frost Group also has a property services division through which the Group will add to and develop the retailing division's portfolio of sites. The Group currently owns 73 operational sites (operated for the Group by commission operators under 28 day licences) with 6 awaiting redevelopment and aims to build this portfolio substantially. The Group is not involved in the sale or servicing of motor cars or car hire and the Directors do not intend the Group to become involved in these businesses.

Frost, which was a listed company on the London Stock Exchange, was acquired by Norfolk House in August 1990 for over £60 million. In March 1991, an administrative receiver was appointed to Norfolk House and to certain of its subsidiaries but not to Frost and its subsidiaries. At that time, James Frost, who had been Chairman and Chief Executive of the Group from 1983 to August 1990, was invited to resume those appointments. Norfolk House will retain no shares in the Company following the Issue.

Business strengths

The Frost Group operates principally in petrol retailing which is an industry with the following features which make it attractive:

- petrol consumption in the UK has grown steadily for many years
- total demand for petrol in the UK is relatively insensitive to price
- petrol retailing is increasingly concentrated on fewer sites which sell more petrol per site
- petrol retailing as a business has a high entry cost

The Frost Group has, the Directors believe, the following particular strengths:

- it has a small and experienced management team which exerts strong central control over operations
- its petrol retailing business is enhanced by its own sales promotion business
- its trading activities are cash generative
- it has the size to negotiate favourable short term petrol supply arrangements
- its management team has expertise in assessing the potential of petrol retailing sites

In the Directors' opinion, it is these strengths which enabled the Group to increase progressively earnings per share from the continuing businesses from 1.97p in 1981 to 23.2p in 1989, the last full year before the takeover of the Company by Norfolk House. Following the reappointment of James Frost as Chairman and Chief Executive, the Group's central controls and attention to detail have been reimposed and the Directors expect that this will enable the Group to produce further earnings per share growth in the future.

Current Trading and Prospects

Under the control of Norfolk House between August 1990 and March 1991 the trading policies which up to the start of that period had produced consistent growth for eight years were progressively changed. In particular, previous tight controls were relaxed and new petrol supply arrangements were entered into. In addition 25 sites were sold.

Following the appointment of an administrative receiver to Norfolk House, the reappointment of James Frost to the Group and the arrangement of new bank facilities (which enabled the Group to obtain regular and adequate supplies to its sites), two key changes were reversed. First, the Group's supply arrangements were replaced, on an interim basis, allowing the Group greater pricing flexibility. Secondly, weekly inspections and greater control by field and area managers and the head office were reimposed, contributing to the raising of operating standards and morale on sites. The pricing flexibility which was achieved with the new supply arrangements has enabled the Group to become more competitive in each location: this competitiveness and the partially related re-motivation of the commission operators have contributed to significant volume increases since March.

The effect of these changes has taken time to become evident but, by August 1991, the volume of sales per site had on average recovered to the level in the previous year although the profit margin has temporarily been reduced to achieve this. In addition, the interim supply arrangements made in March have been replaced (to give increased margins and longer credit terms) by short term agreements, in accordance with the Company's previous policy of flexible petrol supply arrangements.

The Directors believe that the Group can, over the next year, increase both the profit margin earned on each gallon of petrol sold and the volume of sales on many of the Group's sites. They further believe that, in the current market for petrol retailing sites, it will be possible to acquire further sites which meet the Group's exacting criteria for returns on investment. The initial intention of the Directors is to increase the number of the Group's petrol retailing sites to 100 (the number of sites owned at the time of the acquisition of the Company by Norfolk House) as soon as may be practicable and they believe this can be achieved from the Group's capital base following the Issue. Thereafter the Directors intend to expand the Group's activities to 250 sites over a five year period.

Accordingly, the Directors consider that although the Group's profits for 1991 will be disappointing by comparison with the Group's record in earlier years, the basic steps have been taken to enable the Group to re-establish its previous track record.

TERMS AND CONDITIONS OF APPLICATION

1. The contract resulting from each acceptance of an application under the public offer (the "Offer") of ordinary shares of 25p each ("ordinary shares") in The Frost Group PLC. (the "Company") at 235p per ordinary share (the "Offer price") will be conditional on the whole of the ordinary share capital of the Company, issued and now being issued, being admitted to the Official List by the London Stock Exchange and such admission becoming effective in accordance with the rules of the London Stock Exchange not later than 31st October, 1991 (or such later date, being not later than 7th November, 1991, as Credit Lyonnais Laing may determine after consultation with the Company) and on the Issue agreement (the "Issue agreement") referred to in paragraph 5 of Part V of the Listing Particulars dated 15th October, 1991 relating to the Offer (the "Listing Particulars") becoming wholly unconditional and not being terminated in accordance with its terms before such admission becomes effective. Money collected in respect of applications will be returned through the post to the address of the first-named applicant at the risk of the person(s) entitled thereto by returning the applicant's cheque or banker's draft or by sending a crossed cheque in favour of the applicant without interest if the conditions stated above are not satisfied. [illegible]

[illegible]

... to reject any purported acceptance of the application from a person who the Company or Credit Lyonnais Laing has reason to believe is in the United States or who has a registered address in the United States or who lodges an Application Form or a Priority Application Form in an envelope that has a postmark in the United States.

12. No application may be made on any Application Form or Priority Application Form by or on behalf of a Canadian person or a branch of a Canadian corporation, partnership or firm outside the United Kingdom. Each applicant, by completing and delivering an Application Form or a Priority Application Form, warrants that he is not a Canadian person and is not purchasing ordinary shares offered hereby for the account of any Canadian person or with a view to re-sale in Canada or to any Canadian person. As used herein, "Canadian person" means any individual resident in Canada, any corporation, partnership or firm organised under or governed by the laws of Canada or any political sub-division thereof (except for a branch of such entity located outside Canada), any branch in Canada of a corporation, partnership or firm incorporated or established outside Canada and any investment fund, estate or trust organised under or governed by the laws of Canada or any political sub-division thereof.

[illegible]

The conveyance or transfer on sale of ordinary shares otherwise than by delivery of a renounced Letter of Allocation or following registration of renunciation will be subject to ad valorem stamp duty on the instrument of transfer generally at the rate of 50p per £100 (or part thereof) of the amount or value of the consideration; where an unconditional agreement to transfer such shares is not completed by a duly stamped instrument of transfer within two months of the date of the agreement, a charge to stamp duty reserve tax (at the same rate) may arise.

Any liability of applicants or their renouncees to stamp duty (at the rate of 50p per £100) arising in respect of the transfer of ordinary shares to such applicants or renouncees by Norfolk House pursuant to the registration of Letters of Allocation on or before the latest date for registration will be discharged on behalf of applicants and renouncees by Credit Lyonnais Laing on behalf of Norfolk House. However, these arrangements will not apply to any charge to stamp duty under any of sections 67, 70, 93 or 96 of the Finance Act 1986 (which broadly apply where the applicant is, or is a nominee for, either a person whose business is or includes issuing depositary receipts or a person whose business is or includes the provision of clearance services for the purchase or sale of chargeable securities). Furthermore, renouncees are responsible for the discharge of their own liability to stamp duty reserve tax.

The above statements are intended as a general guide to the current position. Certain categories of person are not liable to stamp duty or stamp duty reserve tax, and others may be liable at higher rates or may, although not primarily liable for the tax, be required to notify and account for it under the Stamp Duty Reserve Tax Regulations 1986.

Any person who is in doubt as to his tax position should consult his professional advisers.

PROCEDURE FOR APPLICATION

The following notes should be read in conjunction with the Application Form.

1. **Insert in Box 1 (in figures) the number of ordinary shares for which you are applying. Applications must be for a minimum of 100 ordinary shares or must be applied for in one of the following multiples**
   - for more than 100 shares, but not more than 1,000 shares, in a multiple of 100 shares
   - for more than 1,000 shares, but not more than 10,000 shares, in a multiple of 1,000 shares
   - for more than 10,000 shares, but not more than 100,000 shares, in a multiple of 10,000 shares
   - for more than 100,000 shares, in a multiple of 100,000 shares

2. **Insert in Box 2 (in figures) the amount of your cheque or banker's draft**
   The amount of your cheque or banker's draft should be the Issue price of 235p multiplied by the number of shares inserted in Box 1.
   For example:

Number of ordinary shares applied for	Amount you must pay
100	£235
500	£1,175
1,000	£2,350
10,000	£23,500

3. **Sign and date the Application Form in Box 3**
   The Application Form may be signed by someone else on your behalf if duly authorised to do so, but the original power(s) of attorney or a duly certified copy thereof must be enclosed for inspection and will be returned in due course. A corporation should sign under the hand of a duly authorised official whose representative capacity must be stated.

4. **Insert your full name and address in BLOCK CAPITALS in Box 4.**

5. **You must pin a single cheque or banker's draft to your completed Application Form at Box 5. Your cheque or banker's draft must be made payable to "Lloyds Bank Plc" for the full amount payable on application as inserted in Box 2 and should be crossed "Not Negotiable—The Frost Group PLC."**
   No receipt will be issued for this payment, which must be solely for this application.
   Your cheque or banker's draft must be drawn in sterling on an account at a branch (which must be in the United Kingdom, the Channel Islands or the Isle of Man) of a bank which is either a member of the London and Scottish Clearing Houses or which has arranged for its cheques and banker's drafts to be presented for payment through the clearing facilities provided for the members of those Clearing Houses and must bear the appropriate sort code number in the top right hand corner.
   Applications may be accompanied by a cheque drawn by someone other than the applicant(s), but any monies to be returned will be sent by crossed cheque in favour of the person named in Box 4.

6. **You may apply jointly with other persons**
   You must then arrange for the Application Form to be completed by or on behalf of each joint applicant (up to a maximum of three other persons). Their full names and addresses should be inserted in BLOCK CAPITALS in Box 6. A Letter of Allocation and a cheque for any monies to be returned in the names of the joint applicants will be sent to the applicant named in Box 4.

7. **Box 7 must be signed by or on behalf of each joint applicant (other than the first applicant who should sign in Box 3 and complete Box 4)**
   If anyone is signing on behalf of any joint applicant(s), the original power(s) of attorney or a duly certified copy thereof must be enclosed for inspection.
   You must send the completed Application Form together with the cheque or banker's draft by post, or deliver it by hand, to Lloyds Bank Plc, Registrar's Department, Issue Section, P.O. Box 1000, 2nd Floor, Bolsa House, 80 Cheapside, London EC2V 6EE so as to be received no later than 10.00 a.m. on 23rd October, 1991. Any person signing this Application Form under a power of attorney must enclose the original power of attorney (or a duly certified copy thereof) for inspection.
   Photostat copies of the Application Form will not be accepted.

THE FROST GROUP PLC.

APPLICATION FORM

Offer by Credit Lyonnais Laing of 10,753,300 fully paid ordinary shares of 25p each in The Frost Group PLC. at 235p per share, payable in full on application

Before making any application to acquire shares you are recommended to consult an independent financial adviser authorised under the Financial Services Act 1986. You may only apply for shares in the proportions stated in Note 1 of the accompanying guide headed "Procedure for Application".

I/We offer to purchase:

Box 1 [ ]

ordinary shares of 25p each in The Frost Group PLC. (or any smaller number of shares for which this application is accepted) at 235p per share on the terms and subject to the conditions set out herein and in the Listing Particulars dated 15th October, 1991 and subject to the memorandum and articles of association of The Frost Group PLC.

For which the amount payable is:

Box 2 £ .00

Box 3 Signature Dated October, 1991

Please use BLOCK CAPITALS

Box 4 Mr., Mrs., Miss or title Forename(s) (in full)
Surname
Address (in full)
Postcode

For Official Use only
1. Form No.
2. Acceptance number
3. Shares allocated
4. Amount received £
5. Amount payable £
6. Amount returned £
7. Cheque number

Box 5 **Pin here your cheque/banker's draft, made payable to "Lloyds Bank Plc" and crossed "Not Negotiable—The Frost Group PLC." for the amount in Box 2.**

Fill in Boxes 6 and 7 only when the application is being made jointly or on behalf of more than one person. The first or sole applicant should sign in Box 3 and complete Box 4. Insert in Box 6 the names and addresses of the second and subsequent applicants (up to a maximum of three additional applicants), each of whose signatures is required in Box 7.

Joint applicants only:
Please use BLOCK CAPITALS

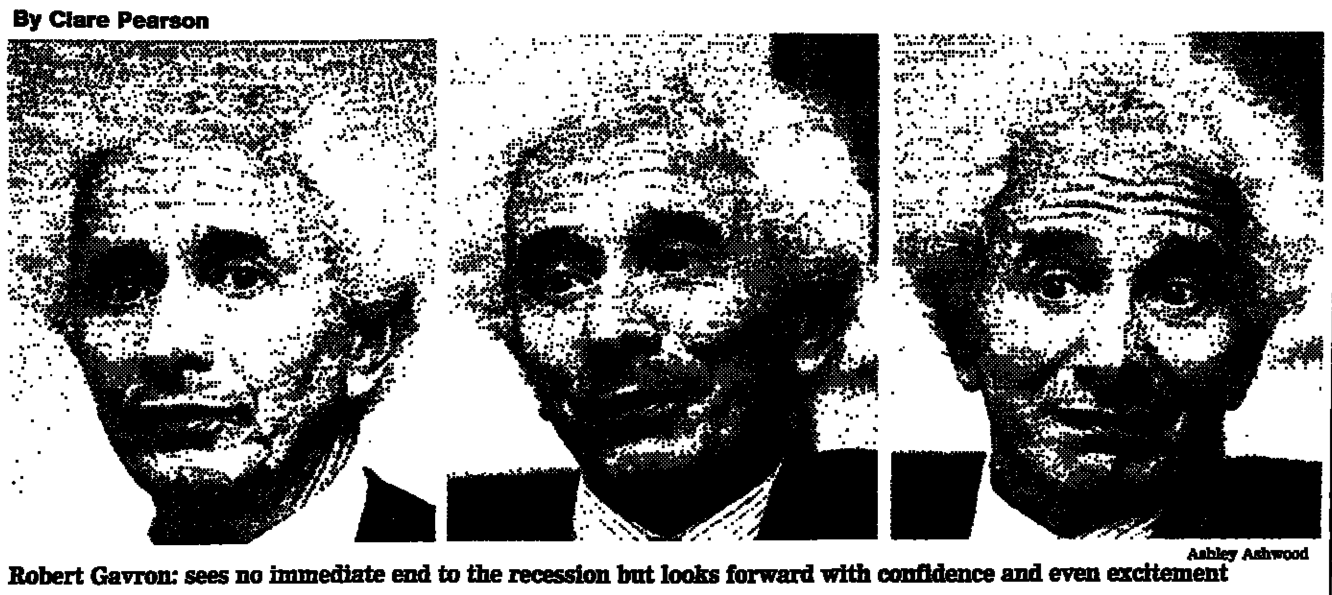
Box 6	Mr., Mrs., Miss or title Forename(s)	Mr., Mrs., Miss or title Forename(s)	Mr., Mrs., Miss or title Forename(s)
	Surname	Surname	Surname
	Address	Address	Address
	Postcode	Postcode	Postcode
Box 7	Signature	Signature	Signature

You must send the completed Application Form together with the cheque or banker's draft by post, or deliver it by hand, to Lloyds Bank Plc, Registrar's Department, Issue Section, P.O. Box 1000, 2nd Floor, Bolsa House, 80 Cheapside, London EC2V 6EE so as to be received no later than 10.00 a.m. on 23rd October, 1991.

UK COMPANY NEWS

Recession cuts St Ives by 31%

By Clare Pearson



Ashley Ashwood

Robert Gavron: sees no immediate end to the recession but looks forward with confidence and even excitement

PRE-TAX PROFITS at St Ives, the largest independent printer in the UK, slumped by nearly a third in a year described by Mr Robert Gavron, chairman, as the worst trading conditions during 30 years' experience of the industry.

With margins hit in all parts of the business, the pre-tax balance in the year to August 2 fell by 31 per cent from £29.1m to £20.2m, as turnover declined from £226.3m to £217.7m. But the final dividend is again 3.5p for an unchanged 5p total.

Mr Gavron said he saw no signs of the "much talked-of lifting of the recession". Nevertheless, he looked to the future "with confidence and even a little excitement."

The group had nil gearing despite nearing completion of a £130m five-year capital expenditure programme, which consumed £23.7m during the year.

Mr Gavron said the benefits of that, and cost savings, should feed through during the second half. He noted also that the group was operating at less than 80 per cent of capacity.

Currently, activity in most printing sectors and particularly in magazines was more depressed than a year ago. However, financial printing was benefiting from increased activity in the City.

He could not reveal the value of St Ives' contract to handle all the printing for the upcoming BT share sale. He said that the group was also involved in "most of the big deals going on in the City at the moment".

The nearly-completed reorganisation included installing 40 new presses, reducing the number of manufacturing sites from 30 to 21, and employees from 3,500 to 3,100.

After a lower tax charge of 29 per cent (33.5 per cent), earnings declined to 14.6p (19.8p) per share.

● COMMENT

In theory, printing companies make attractive investments ahead of an economic upturn because of their high operational gearing which means they benefit immediately from volume increases. In addition, the management at St Ives enjoys an excellent reputation and the group also boasts nil gearing. However, all that appears to be taken care of in the rating – the prospective p/e, assuming current year profits of £23m, is about 15. Meanwhile, the results showed clearly how grim trading conditions are, with pressure on margins last year eating up the benefits of the cost saving programme. Especially given expectations of a slow and modest economic recovery, the share price appears to have little headroom at the moment.

See Observer

Manufacturing downturn hits Farnell

By Clare Pearson

FARNELL Electronics, which recently acquired STC's distribution division, announced pre-tax profits down from £15.9m to £13.3m in the half-year to end-July.

Turnover at the electronics distributor was £81.8m (£87.9m). Earnings per share came to 6.5p (7.4p).

The interim dividend, however, is slightly increased to 2.6p (2.5p).

Mr Raymond Kidd, chairman, said the dominant distribution division had increased profits. It was the manufacturing side, mainly involved in power supplies and instruments, which had suffered the brunt of the downturn in the market.

"We see no sign of any improvement in trading at the moment," he said.

However, the group would be well-positioned to benefit from an uplift in demand, especially following the purchase for £61m in July of ESD, which had made it the second-biggest distributor of electronic components in Europe.

Put together with Cayson Engineering, bought in May, ESD, made a small contribution to pre-tax profits after financing costs. The two companies' contribution to turnover was £8.4m.

Interest received amounted to £1.57m (£1.69m). The group moved into net debt after purchasing ESD, although Mr Kidd noted that cash flow had been strong. The group had, at the end of the interim period, drawn down only £17.5m out of the £40m revolving credit facility put in place when ESD was acquired.

● COMMENT

The resilience of Farnell's distribution division may look rather exciting but it needs to be noted that recession has anunusual effect on this part of the business: customers tend to place smaller orders, more often, and this benefits margins because the company's prices vary according to size. Although Farnell does not break down results by division there was disappointment yesterday as it appeared the manufacturing side had been hit even harder than expected. Nevertheless, the group has a rock solid record and is certainly generating lots of cash. The prospective p/e is over 15, assuming full-year profits of about £30m. That looks more than high enough, although any interesting news on the new ESD business could perhaps inject some excitement into the share price.

Finlan calls for £7.7m in second plea for survival in 15 months

By Clare Pearson

FINLAN, the property and timber group, yesterday announced doubled losses for 1990-91 and made its second plea for survival within 15 months.

It is asking shareholders to approve a £7.7m preference share issue which the company said is needed to stave off its collapse.

The company yesterday said it hoped to use the preference shares to satisfy obligations to creditors. It raised £6.4m via an offer to shareholders in August last year. Mr Patrick Giles, chairman, said it had then incorrectly assumed, in calculating the amount it needed, that the UK property market would improve during 1991.

The pre-tax loss for the year to end-March amounted to £15.7m, compared with £8.3m previously. Finlan said that with two exceptions, there had been no sales of commercial property during the year.

Net assets of the company have fallen to less than half of its called up share capital, requiring under company law the calling of an extraordinary meeting, and it is in breach of its borrowing limitations.

Assuming conversion, the 7.7m proposed new cumulative preference shares would amount to 52 per cent of the enlarged ordinary share capital.

Finlan plans to issue preference shares as part of a number of transactions mostly in settlement of lease obligations and rental guarantees.

In particular, it said it could reduce gearing significantly if a complex deal with Fenno-Scandia Bank and Bank Negara Indonesia 1946, owed £18.2m relating to the sale of a development in Soho, London, goes through. They would take up 4.5m of the preference shares.

In addition, Finlan hopes to issue 1.3m to Hudson Conway, a company to which it last year sold a Covent Garden property. It then lent Hudson £1m on the condition that this would be repayed if the property were sold at above a certain price.

Finlan said such a sale now looked most unlikely and this was reflected in an exceptional charge of £2.5m against last year's profits.

Holders of £1.42m nominal of loan stock, bearing interest at 7 per cent. are also being asked to accept changes to conversion terms such that these would convert into the new shares.

Losses per share were 7.1p

Lloyds Chemists blames MMC referral on health sensitivity

By Jane Fuller

MR ALLEN LLOYD, chairman and chief executive of Lloyds Chemists, the UK's second largest retail chemists' chain, said yesterday that political sensitivity on health issues seemed to have played a part in the decision to refer his company's latest bid to the Monopolies and Mergers Commission.

Speaking as he unveiled a 53 per cent advance in annual profits, Mr Lloyd said that health was one of the issues high on the political agenda in the run-up to the general election.

Concern about the distribution of prescription drugs caused Lloyds' £83m recommended bid for Macarthy and a lower offer from UniChem, one of the UK's biggest pharmaceutical wholesalers, to be referred to the MMC.

Mr Lloyd said his business was retailing, not wholesaling.

Although the company supplied nearly 80 per cent of the drugs sold in its 637 stores, this only amounted to 5 per cent of the market.

He said he was surprised when UniChem's bid for Macarthy was referred.

Macarthy, through its 175 Savory & Moore shops, makes up only 1.5 per cent of the 12,000 UK pharmacies.

A 40 per cent increase in sales of the chemists' division helped Lloyds increase pre-tax profit from £13.6m to £20.8m in the year to June 30.

The chemist division, second only to Boots' 1,060-store chain, contributed £190m of the £248m (£180m) turnover, enhanced by 74 former Cross & Herbert stores bought at the end of the previous year, and by Kingswood-GK, Barley and another small chain purchased in the last quarter of 1990-91.

The £55m Kingswood deal, including 190 Holland & Barrett health food shops, was funded by a £71.1m rights issue.

This held back earnings growth to 21 per cent, giving 20.96p (17.36p) per share.

Mr Lloyd said the profitability of the acquisitions was improved by cutting central costs, introducing own-label lines and enhancing marketing and distribution.

In addition, newly acquired stores might rely on lower-margin prescribed drugs for up to 80 per cent of their business. His aim was to reduce that proportion to 50 per cent.

The prescription business, however, attracted customers. "The average person has seven prescriptions a year and the total number grows at a steady 2 to 3 per cent."

Drugstores, where Lloyds' 200 outlets are second to Superdrug's 650, increased sales by 16 per cent to £51m. Another 35 stores would be added by next June.

Holland & Barrett, the biggest healthfood chain in a market dominated by 1,697 independents, contributed £6.5m in six weeks.

The results benefited from £1.1m (£600,000) property profit.

A final dividend of 3p makes a total of 4.17p (2.78p).

● COMMENT

Whether or not Lloyds acquires Macarthy, it seems set for another year of growth fuelled by recent acquisitions. It has their integration down to a fine art, from the immediate removal of managers to the long-term sales drive in the higher margin part of the business. The increase in own-label lines from 12 to 27 per cent of chemists' sales since 1988 exemplifies this. But because the number of pharmacies is fixed, Lloyds has had to be acquisitive, which has some perceived drawbacks. If the Macarthy bid is revived, the number of shares in issue will have virtually doubled in a year. With net assets held back by goodwill write-offs, gearing could jump to 50 per cent through Macarthy's debt being absorbed on top of the cash element of the offer. So far it has been worth it: the acquisitions have enhanced earnings and should continue to do so, as a pre-tax forecast of £26m for the current year suggests. Bearing in mind the safe nature of a health-related business, this gives an undemanding prospective multiple of 10.7 on yesterday's close of 285p.

NEWS DIGEST

Cityvision shares fall on warning

THE SHARE price of Cityvision, the video rental company, fell by 22 per cent, from 34p to 26½p yesterday after it announced that pre-tax profits for the half-year to November 30 were unlikely to match the £3.5m of the first half. Profits for the year to November 1990 were £16.35m.

The first half result was itself 58 per cent lower than the £8.37m achieved in the half-year to the end of May 1990.

Mr Bev Ripley, chairman, said that although June's results provided an encouraging start to the second half, trading levels since July had been disappointing, reflecting the impact of the recession.

However, the group was in a net cash position with a strong positive cash flow and was well placed to benefit from the anticipated upturn in consumer spending, he added.

More Invergordon shares for W&M

Whyte & Mackay yesterday announced that it had acquired a further 4 per cent stake in Invergordon Distillers, increasing its total holding to 22.7 per cent of the Scotch whisky group, which has rejected its £350m takeover bid.

London Atlantic net assets up 26%

London Atlantic Investment Trust reported a net asset value of 84.6p per share as at September 30 – a rise of 26 per cent on the previous year's 67.1p.

The trust, managed by 3i Portfolio Management, saw net revenue rise to £647,000 (£610,000) in the six months to end-September for earnings of 1.42p (1.34p) per share.

The interim dividend goes up from 0.72p to 0.75p.

London & St Lawrence improves

The net asset value per share of London & St Lawrence Investment Trust stood at 140.02p at August 31, an 18 per cent improvement on 118.61p at the previous year end.

Gross income for the year rose to £1.13m (£837,000) and net revenue advanced from £592,179 to £804,369.

Earnings per share came out at 4.27p (3.15p) and the dividend is raised to 3.06p (2.1p). There is again an additional special distribution of 0.6p.

AIB's US offshoot advances 24%

First Maryland Bancorp, the US subsidiary of Allied Irish Bank, boosted its pre-tax profits by 24 per cent to $29.7m (£17.2m) in the third quarter of the year, up from $23.89m.

Total assets at September 30 1990 were 3 per cent up at $7.92bn ($7.7bn), while total lending was down by 16 per cent from $5.35bn to $4.49bn.

Total deposits were up by 13 per cent from $5.32bn to $5.99bn.

SE link with Topic screen breaks down

The link between the Stock Exchange's commercial company news service and the Topic screen on which it is displayed broke down yesterday.

An abridged version of the day's business news was provided, fulfilling the Stock Exchange's regulatory responsibilities to ensure price sensitive information.

The regulatory news service was working normally via a digital feed to the Topic screen and Reuters, the news agency and information group.

Service was restored shortly after 7pm.

Net asset values improve at Venturi

For the six months to September 30 Venturi Investment Trust reported net revenue of £101,182, against £109,908, for earnings per share down from 1.83p to 1.69p. The dividend is lifted from 1.31p to 1.4p.

Net asset value per capital indexed share stood at 262.17p compared with 199.02p a year earlier.

Net asset value per ordinary geared share was 9.77p (5.67p) undiluted and 9.47p (5.22p) diluted. The value of the income shares was 25.75p (25.52p).

DIVIDENDS ANNOUNCED

	Current payment	Date of payment	Corres - ponding dividend	Total for year	Total last year
Brown (N) ....int	1.75†	Jan 9	1.65	-	5.65
Elswick ....int	0.22	-	0.22	-	0.6
Farnell Elect ....int	2.6	Dec 6	2.5	-	5.5
Lloyds Chemists ....fin	3	-	2	4.17†	2.78
London Atlantic ....int	0.75	Dec 9	0.72	-	2.8
London & St Law ....fin	3.06	Dec 10	2.1	3.66☆	2.7☆
Pat'son Zochonis ....fin	8.25	Dec 4	7.4	10.4	9.45
Polymark Intl ....int	0.5	-	nil	-	1
Silentnight ....int	2.25	Jan 2	2.25	-	7
St Ives ....fin	3.5	Dec 4	3.5	5	5
Tudor ....int	0.5	Dec 13	1	-	2.7
Venturi Inv Tst ....int	1.4	Nov 29	1.3125	-	3.06

Dividends shown pence per share net except where otherwise stated. *Equivalent after allowing for scrip issue. †On capital increased by rights and/or acquisition issues. §USM stock. ☆Includes special payment of 0.6p.

CONTRACTS & TENDERS

REPUBLIC OF PERU
MINISTERIO DE PESQUERIA
FOFIP-FONRESPE
TENDER NOTICE
JAPANESE NON-PROJECT GRANT AID

The Governement of the Republic of Peru has received a grant from the Government of Japan to contribute to the promotion of economic structural adjustment and intends to apply the proceeds of this to eligible payments under the contract for which this invitation to bid is issued.

In this respect the Government of the Republic of Peru has authorised the Crown Agents for Oversea Goverments and Administrations to act as its procurement agent and Crown Agents now invite bids from eligible bidders from OECD/DAC countries (excluding the Republic of Peru who are ineligible) for the supply of the following required by FOFIP-FONRESPSE.

INBOARD MARINE ENGINES COMPLETE WITH STERNGEAR AND SPARE PARTS

62 PCS 15-20 H.P
147 PCS 34-42 H.P
49 PCS 60-80 H.P
12 PCS 105-120 H.P

Interested bidders may obtain the bidding documents for a non-returnable fee of US$ 150.00 or its equivalent in other currency by contacting the following address:

Crown Agents
St. Nicholas House,
Sutton, Surrey,
1EL, England
For the attention of Mr M. Russell, BJ Dept
Telex: 916205 A/B Calond G
Fax: 081 643 0038 and 081 643 8232

Documents may also be obtained from Crown Agents offices in Lima; Peru, Miami; USA, Japan and Singapore.
Please quote reference BJ/1/80078/1

The tender closing date is 26th November 1991.

COMPANY NOTICES

DIMOSIA EPIHIRISIS ELEKTRISMOU
(Public Power Corporation)
U.S. $50,000,000
Floating Rate Notes due 1994

NOTICE IS HEREBY GIVEN that for the Interest Period commencing on 17th October, 1991, the Notes will bear interest at the rate of 5⅝% per annum. The interest payable on 21st April, 1992 against Coupon No. 19 will be U.S. $14,334.03 per U.S. $500,000 Note.

Fiscal Agent
ROYAL BANK OF CANADA EUROPE LIMITED

LEGAL NOTICES

THE INSOLVENCY ACT 1986
[illegible] LIMITED

NOTICE IS HEREBY GIVEN pursuant to Section 98 of the Insolvency Act 1986, that a Meeting of the Creditors of the above-named Company will be held at The Northampton Moat House, Silver Street, Northampton, NN1 2TA, on Wednesday 30 October, 1991 at 11 a.m. for the purposes mentioned in sections 99, 100 and 101 of the said Act.

[illegible]

Dated 10 October 1991
By Order of the Board
[illegible], Director

MEETING OF CREDITORS
Pursuant to Sections 98, 99, 100 and 101 of the Insolvency Act 1986
[illegible] LIMITED

NOTICE IS HEREBY GIVEN pursuant to Section 98 of The Insolvency Act 1986, that a meeting of the creditors of the above-named Company will be held at The Palace Hotel, 31 Great Cumberland Place Marble Arch, London W1, on 7th November 1991 at 12.00 noon for the purposes provided for in Section 98 et seq.

A list of names and addresses of the above Company's Creditors can be inspected at the offices of [illegible], between the hours of 10.00 am and 4.00 pm on the two business days preceding the Meeting of Creditors.

Dated this 11th October 1991
Mr. W. W. Miller, Director

LONDON PROPERTY

BARBICAN - Properties available from £88,000. Daytime call 071-628 4848 or 071-628 4341. Evenings call 071-628 4372.

PERSONAL

PUBLIC SPEAKING Training and speechwriting by award winning speaker. First lesson free. Tel:(0727) 821399

AUTHORS Your book published. Details: Excalibur Press of London, 13 Knightsbridge Green, London, SW1X 7QL.

CLUBS

EVE has outlived others due to policy of fair play and value for money. Supper from 10-3.30 am. Glamorous hostesses, exciting cabaret. 189 Regent St, W1.071-734 0557

Prices for electricity determined for the purposes of the electricity pooling and settlement arrangements in England and Wales

1/2 hour period ending	Provisional Price for Trading on 16.10.91: Pool purchase price £/MWh	Final Prices for Trading on 15.10.91: Pool purchase price £/MWh	Pool selling price £/MWh
0030	15.86	16.11	16.11
0100	15.86	16.11	16.11
0130	15.90	16.11	16.11
0200	15.90	16.11	16.11
0230	15.96	16.11	16.11
0300	15.95	16.11	16.11
0330	15.86	16.11	16.11
0400	15.88	16.11	16.11
0430	15.87	16.11	16.11
0500	15.86	16.11	16.11
0530	15.82	16.01	16.01
0600	15.83	16.03	16.03
0630	15.86	16.00	16.00
0700	16.21	18.89	20.76
0730	19.16	19.12	21.12
0800	26.62	22.62	25.81
0830	29.47	25.53	29.62
0900	30.91	33.33	38.94
0930	28.86	36.39	41.63
1000	27.79	38.74	43.41
1030	26.75	37.86	44.97
1100	26.46	39.01	46.50
1130	27.14	42.15	50.70
1200	27.30	43.78	52.80
1230	26.28	41.11	49.16
1300	24.44	35.86	42.06
1330	20.17	29.38	33.47
1400	19.82	27.52	31.03
1430	19.06	26.59	29.76
1500	19.06	26.68	29.86
1530	19.14	26.97	30.29
1600	21.66	28.62	32.38
1630	23.56	30.65	35.29
1700	28.70	32.10	37.25
1730	30.33	29.96	34.36
1800	31.98	26.84	30.22
1830	33.38	24.76	24.76
1900	32.77	23.56	25.73
1930	29.22	24.90	27.59
2000	22.29	26.07	29.19
2030	18.76	26.35	29.51
2100	18.57	25.31	28.09
2130	18.18	24.09	26.41
2200	18.16	20.66	22.53
2230	17.56	18.90	20.75
2300	17.28	18.16	19.99
2330	16.00	17.84	19.67
2400	15.83	16.11	16.11

Prices are determined for every half-hour in each twenty-four hour period. Prices are in pounds per megawatt-hour, rounded to two decimal places. To convert prices to pence per kilowatt-hour the decimal point should be moved one place to the left, eg £15.86/MWh becomes 1.586p/KWh. Provision for the determination of pool prices is made in the Pooling and Settlement Agreements which govern the operation of the electricity pool in England and Wales. The Pool Purchase Price is the basis of the majority of payments made to generators in respect of electricity traded through the pool. The provisional Pool Purchase Price is subject to revision or correction until final pool prices are determined approximately twenty-four days after the day of trading. Pool Selling Price is the price paid by purchasers of electricity under the pool trading arrangements. It is dependent upon the determination of Pool Purchase Price. Final pool prices are also capable of revision.

NGC Settlements Limited

Experts hedge their bets about the timing of the economic recovery

Jane Fuller gives a round-up of how companies have fared in the recession and the experts' best estimates of when the upturn will come

THE latest round of UK company results were every bit as awful as predicted. What was not expected was the gloomy nature of chairmen's statements.

It had been hoped that these would herald recovery, but Sir Anthony Gill, chairman of Lucas, echoed the words of many this week when he said: "Our markets remain depressed."

In a period when many observers became inured to bad news, Lucas was among the companies taking considerable redundancy costs above the line (another bunch managed to present them as extraordinary).

For businesses making these provisions, the theory is that next year's profits will not only benefit from the exclusion of these costs, but also from the payroll savings.

Two other reasons have emerged for muted optimism that profits will start to recover even if markets remain anaemic: lower interest rates and favourable currency movements. On the first point, the present 10.5 per cent base rate compares with an average of 14.8 per cent in 1990.

The weakening of the dollar, which hit several companies' profits, shows in the average first-half exchange rate of $1.81 down from $1.67. Since the end of June, however, the movement has reversed: an average of $1.69 compares with $1.90 in the second half of last year.

These profit-friendly factors, coupled with a hope that North America will show the way out of recession, have led Mr Alun Jones, equity market analyst at UBS Phillips & Drew, to forecast a 12 per cent growth in industrial pre-tax profits next year.

Ever the optimist, he believes the more confident statements that failed to materialise with the January-June interims might soon appear with some of the April-September figures. But this is partly because there will be fewer engineering, capital goods and building companies among those reporting.

In the season just finished, any company exposed to motors was liable to suffer. The extent of the problem can be judged from the sharp fall in UK car sales. From a peak of 2.3m units in 1989, this year's outcome is expected to be less than 1.6m and only a modest improvement to 1.75m is pencilled in for 1992.

Sir Anthony said it was simply a question of weathering the storm and he refused to forecast when it would abate. Among the other motor-related companies falling into this rut was T&N, with a 56 per cent fall in interim pre-tax profit to £20.3m. The small comfort offered by overseas operations, also affected by economic slowdowns, was eroded by a 45 per cent tax charge, partly caused by unrelieved ACT.

Lord Sterling: delay in economic recovery a big factor in P&O's plans

Sir Anthony Gill: it is simply a question of weathering the storm

Jim Owen: analysts' profit forecasts for the whole of 1992 were too optimistic

In the building sector, the pain showed through at Wimpey, which barely broke even, and Tarmac, down by four fifths. And an explicit warning on recovery prospects came from RMC, the world's biggest ready-mix concrete producer. Mr Jim Owen, managing director, said that analysts who had been forecasting a £15m to £20m improvement in profits to £190m for the whole of 1992 were too optimistic.

Deflated by such cautions, some analysts have grown weary of trying to call the end to the recession. Their increased scepticism mirrors the staleness that has crept into the rights issue market, which happily accepted Ladbroke's and P&O's issues in late August. Those calls took the running total for the year to £7.66bn, well ahead of the 1987 record of £6.97bn. Now the tab has reached £8.63bn the institutions have started to jib.

Significantly, Lord Sterling, P&O's chairman, made it clear that the delay in the expected economic recovery was an important factor in his company's fund-raising decision.

Applying this to the worst affected sectors, where analysts expect to be downgrading forecasts well into 1992, a case would exist for many more issues by next spring.

Yet in spite of the cautious noises, considerable hope remains in the share prices. In engineering, normally at a 10 to 15 per cent discount to the market, many stocks are on a multiple of 14 times 1992 earnings, compared with 12 times for the market.

Even the analysts who pride themselves on avoiding premature recovery calls are hoping that the March statements accompanying full-year figures will, at last, be optimistic. That is when companies will be settling their final dividends, and the belief is that they can stomach uncovered payments for one year.

The importance of this point was illustrated by Harrisons & Crosfield, the chemicals, building supplies and animal feed business. Mr David Hopkinson caused a flurry of anxiety in his swansong as chairman when he only expressed a "hope" of dividend maintenance. This was later clarified as an intention, *unless the 1992 outlook was a good deal worse than expected.* It was taken to be a reassuring comment.

The interim results season did, of course, produce stories of comfort from recession-resilient stocks, notably in the food and health-related sectors, and a smattering of trend-buckers.

The food sweeteners were characterised by Cadbury, which pushed up taxable profit by 6.5 per cent, although volumes were flat. Margin improvement has become an art in an industry where even a good year will only see 2 per cent real growth in the market. Conversely, in a bad year, the real fall is only the same amount, an enviable cushion.

On the health side, profits continued to grow in companies as diverse as the tiny Takare, with its private nursing home formula, and Glaxo, the Footsie's second largest constituent, which caters for ailments as prevalent as ulcers, asthma and migraine.

Among the trend-buckers, one of the most remarkable figures came from Kwik-Fit, the car parts retailer, which increased interim pre-tax profits by 67 per cent. Part of the secret was that it helped owners to look after the health of their ageing vehicles – the ones they did not replace.

Yet with operating margins widening from 9.9 per cent to 13.8 per cent it also demonstrated good management of the type that the recession has brought to the fore.

Spring Ram was another. Although the UK markets for kitchens and bathrooms were estimated to be 10 to 15 per cent down, it improved pre-tax profit by 25 per cent.

Its secret lay in the subsidiaries it had bred rather than bought in the late 1980s, in building up cash during a capital spending lull and in a small company philosophy, where a dozen entities are run by highly-motivated entrepreneurs.

Fleetness of foot in switching to more buoyant markets, both in terms of machine application and geographic destination, helped EIS, the specialist engineer, to stay on course for 21 years of profit growth. Similar virtues paid off at BM Group, the construction equipment business, which also effected radical surgery at its Blackwood Hodge acquisition.

All of these companies fall outside the FT-SE 100 index, which Mr Jones at UBS is forecasting will end the year at 2,700, compared with yesterday's close of 2,577.

Looking ahead, his main worry is the general election. While most analysts feel its delay has created sufficient uncertainty to hold up the recovery, he has factored in a big variation in Footsie prospects depending on the result.

If the Tories "scrape home", he is looking for 3,000. If Labour wins, the impact of higher funding requirements on the gilts market and "possible problems with inflation and currency" reduce his mid-1991 forecast to 2,600.

Silentnight makes modest improvement to £4.6m

By Roland Rudd

SILENTNIGHT Holdings, Europe's biggest bed manufacturer, yesterday reported a 2.7 per cent increase in interim profits to £4.62m pre-tax.

However, Mr Bill Davies, chairman, warned that he was "cautious about the immediate future" because there was no evidence of any general upturn in UK trade.

Despite the depressed state of the British furniture market, sales from ongoing activities were up 6 per cent after adjustment to reflect the disposal of the upholstery division in August 1990.

Overall turnover for the six months to August 3 was £65.6m against £78m last time.

Silentnight claims about 35 per cent of the UK beds market, with its Sealy, Silentnight, Layezee and Perfecta brands covering the market from premium to budget level.

Mr Davies said that while it was difficult to pass on price increases, the group had increased the efficiency with which it produces components. This had helped it maintain margins in the UK.

Overseas companies, which account for 12 per cent of group turnover, performed less well than the UK. The US subsidiary in Boston suffered a 20 per cent drop in volume with attendant loss of profit.

The interim dividend is maintained at 2.25p. Earnings per share were 6.64p (6.37p).

Tudor halves interim

TUDOR, *the tiling group, saw* pre-tax profits fall by £10,000 to £94,000 in the first half of 1991 and is halving the interim dividend to 0.5p.

Mr Philip Battin, chairman, said the cut was considered prudent in the current economic climate. Earnings per share dropped to 1.24p (1.39p).

He thought the profit satisfactory as it took account of the cost of acquiring two additional depots, and interest *charges of £112,000 (£72,000).*

Turnover worked through at £6.42m (£6.18m). Sales to the multiple DIY sector continued to fall and that trend would remain for the current year.

Midland Tile was affected by the depressed new housing market and construction industry, but remained profitable. Mitchell Flooring also suffered, but in the current half had shown a healthy improvement in sales and profitability.

BOARD MEETINGS

TODAY

Interims- Baris, English & National Inv, Essex Water, Gerrard & National, Lilley, Suffolk Water.

Finals- Thorntons.

FUTURE DATES

Interims-	
Airflow Streamlines	Oct. 24
BMSS	Nov. 7
Babcock Intl	Nov. 18
Bank of Ireland	Nov. 14
Burtonwood Brewery	Nov. 7
Business Technology	Oct. 17
Cook (William)	Oct. 28
Geared Inc Inv Trust	Nov. 13
General Cons Inv Trust	Nov. 13
Hambros	Nov. 27
House of Lerose	Nov. 23
Intl Business Comms	Oct. 29
Moss Bros	Oct. 28
Petrocon	Oct. 22
Ralston Inv Trust	Oct. 29
Turriff	Oct. 28
Finals-	
Air London Intl	Oct. 17
Allied London Props	Oct. 22
TR Far East Income	Oct. 28

UK COMPANY NEWS

N Brown ahead 9% but sees no end to recession

By John Thornhill

N BROWN Group, the mail order company which specialises in selling clothes to older, outsize women, yesterday notched up a 9 per cent improvement in interim profits as it encountered "extremely difficult" trading conditions.

But although the company felt sufficiently encouraged to lift the dividend by 6 per cent, it said it could see no easing of the recession.

"We feel that the second half will be as tough as the first half. We do not see any shaft of light," said Mr Jim Martin, managing director.

In the 26 weeks to August 31, profits rose from £5.51m to £6.03m although this was deflated by the inclusion of £557,000 of exceptional costs relating to the reorganisation of warehousing operations.

The company has now centralised 90 per cent of its distribution through one warehouse, located near Manchester.

It has disposed of three other warehouses and a further two will be sold when market conditions improve.

Traditionally, the company has targeted its specialist catalogues at the older generations but it reported considerable success in launching new catalogues aimed at "post-war baby boomers" taking the total number to 15.

Sales grew by 10 per cent to £69.5m while operating profits rose from £8.39m to £9.18m.

Home shopping contributed profits of £8.9m (£8.03m) while the group's financial and property interests chipped in £381,000 (£473,000).

The inflow of cash from the £16.5m rights issue in May helped reduce the interest charge from £3m to £2.28m.

The interim dividend goes up from 1.65p to 1.75p. However, earnings per share fell from 6.23p to 5.99p.

This dilution resulted from a 20 per cent increase in the equity base as a result of the rights issue and a grant of 4.25m shares to an employee share option trust.

● COMMENT

The City has grown to appreciate N Brown's reassuring steadiness following the traumas of the 1988 postal strike and yesterday's figures only confirmed this conviction as shown by a 5p rise in the share price to 263p.

Much work has clearly been done to defend margins, and the substantial investments in centralised distribution and computer systems will pay big dividends in years to come. In the meantime, the reorganisation of its warehouse operations will result in another slug of exceptional costs in the second half of about £300,000.

The action taken to staunch exposure to surveying and fund management activities proved more efficacious than the City expected and in time even they may come good.

This year, pre-tax profits are forecast to advance to some £17m putting the company on a prospective multiple of about 15, which is hardly demanding for a well-run company with a proven formula.

Oftel stresses independent stance over second stage of BT sell-off

By Hugo Dixon

AS THE second-stage privatisation of British Telecommunications gets under way, Oftel, the industry's regulatory body, is refusing to have its hands tied by considering the effect of its actions on BT's share price.

It has refused to give the government's advisers in the privatisation of the second tranche of BT shares access to its financial projections for the company on the grounds that it is an independent regulator.

It has also emphasised that it will not feel constrained in how it controls the company's tariffs by any need to make sure that the share price does not fall following the £5bn offer for sale in December.

This will come as a surprise to the City where there is a general complacency that if investors buy shares from the government they will be safe.

"There is a widespread belief that you will not suffer as a result of buying BT shares," said Mr Laurence Heyworth, an analyst at Robert Fleming Securities, a stockbroker independent of the sale.

Sir Bryan Carsberg, Oftel's director general, said that, as an independent regulator, it is his job to determine the regime for controlling BT's prices.

This has a sizeable impact on the company's profitability and share price, but his hands would not be tied by the government's privatisation, he said.

"People will have to buy these shares knowing that there will be a new price control regime from mid-1993."

Sir Bryan is sensitive to the criticism that BT has been allowed to make too high profits.

The price control regime which came into effect in September and required the company to cut the average level of its prices by 6.25 per cent in real terms would, he said, bring down the company's return on capital, now standing at 23 per cent.

But he refused to be drawn on whether the company's profits were too high or how he would regulate them when the current regime ends in 1993.

According to Mr Heyworth, Sir Bryan should make a public statement before the share sale, clarifying what he considered to be a suitable level of profitability for BT and whether he would be continuing as Oftel's director general after his current term runs out next June.

"If Carsberg wants to maintain his independence, he should stand up and say what he believes before the offer for sale."

Paterson Zochonis edges ahead to £25.4m

By Jean Marshall

PATERSON ZOCHONIS, the Manchester-based maker of Cussons toiletries which has substantial trading interests in West Africa, announced taxable profits slightly ahead to £25.4m for the year to May 31.

The result, which was "somewhat better than envisaged at the half year", compares with £25m last time.

Earnings per share worked through at 32.19p (30.51p) and the proposed final dividend is lifted to 8.25p for an improved 10.4p (9.45p) total.

The company said the Nigerian companies made further progress in spite of difficult trading conditions. Volume sales had been maintained or increased and, additionally, some new products had been launched. Profits in local currency terms advanced by 10 per cent but in sterling terms were slightly lower as the value of the naira against the pound fell over the year.

Profits from Kenya and Ghana "showed modest improvement" but the operations of the Interparco subsidiaries in the Ivory Coast, Senegal and the Central Africa Republic were closed, with costs shown as an extraordinary £1.34m.

In the UK Cussons had maintained turnover and profits "in a depressed and competitive market", and new high speed equipment had been installed for soap packaging and liquid detergents production. Some non-core activities were closed down or disposed of without loss.

Elsewhere, the edible oils operation in Greece improved both sales and profits, while the Australian activities showed a profits fall. Expansion of factory capacity there was proceeding as planned.

Directors said that while the outlook for the half year to November 30 continued to be highly competitive, indications were that profits would be just ahead of the £11.25m achieved last time.

Turnover for the year fell to £215m (£225m) but the taxable result reflected increased investment income of £18.2m (£18m) and lower interest payable of £6.88m (£7.14m).

James Frost: profits would be poor this year

Frost makes return to market at 235p

By Peggy Hollinger

FROST GROUP, one of Britain's largest petrol retailers, yesterday announced its return to the stock market with the launch of a £46m placing and offer at 235p per share.

Frost is only the third company to be refloated on the Stock Exchange, after Rolls-Royce and Stone, the engineer. The float will create Britain's largest quoted independent petrol retailer.

The decision to return to the market was taken by Arthur Andersen, the receivers of Norfolk House, the property developer which bought Frost in August last year for a £60m all-paper consideration.

Norfolk House – excluding Frost and its subsidiaries – went into administrative receivership in March. About three quarters of the proceeds will be used to pay off Norfolk House creditors, leaving Frost with about £11.5m to clear its debt and for development.

Some 19.5m shares will be placed with institutions or offered to the public, of which 5.1m will be new issue. Eligible Norfolk House shareholders will be given priority over almost 2m shares, said Mr Chris Yates of Credit Lyonnais Laing, brokers to the issue.

Dealings will begin on October 31.

Mr James Frost, who returned as chairman and chief executive at the invitation of the receivers, warned that this year's profits would be poor when compared to the period preceding the takeover. Under the stewardship of Norfolk House, sites had been sold and less appropriate petrol supply agreements negotiated.

"The changes put in place by Norfolk House have had to be altered back," he said. The group's immediate aim was to restore its portfolio of sites from the current 79 to the 100 held before the takeover. Frost also planned to pursue an aggressive expansion policy during the next decade.

Considerable progress had been made on restoring sales volume, although margins had suffered, said Mr Frost. He added that new petrol supply agreements were in place.

In the year to December 31, Frost made taxable profits of £4.75m on turnover of £101.5m. The 235p issue price gives an historic multiple of 9.7.

Frost is a high volume petrol retailer trading under the names Save and Look service stations in England and Wales.

NEWS DIGEST

Polymark halved at £402,000

THE TWO main sectors of Polymark International both suffered in the first half of 1991, and the resultant pre-tax profit fell to £402,000.

That compared with £931,000, which included £421,000 from the discontinued French operations. Operating income from continuing businesses this time was only £74,000 (£416,000) but was boosted by interest received of £289,000 (£42,000).

Mr Len Weaver, chairman, said the manufacture of laundry equipment suffered its first loss since 1983, as customers postponed orders for new capital equipment and sales of in-house labelling systems and marking tape were badly affected by the recession. From sales of £5.86m (£6.83m) the loss was £20,000 (profit £196,000).

In technographics turnover rose to £3.03m (£2.84m) but profit fell to £94,000 (£220,000). Mr Weaver said that reflected reduced sales in the UK and Europe where the division was "still highly dependent on demand for our labels from the garment and textile industries."

He forecast that the low levels of customer confidence in domestic markets would continue into 1992.

However, he said, prospects were encouraging once the economy began to recover, so an interim dividend of 0.5p is declared following the return to dividends last year with a final of 1p.

Further action had been taken to reduce costs including withdrawing from textile manufacturing by selling weaving operations to management, and the acquisition of Franklin Labelling and merging it with Polymark Textile.

Elswick drops into lower gear

Pre-tax profit at Elswick fell by 33 per cent from £1.51m to £1.01m, in the half year to July 31. Turnover moved up £2m to £31.9m.

The specialist print and packaging division showed "healthy increases in both sales and profits" and, in unfavourable market conditions, the equipment and services side "did well" to produce virtually unchanged sales and profits.

Although the cycles division accounted for less than 15 per cent of business, it incurred a substantially increased loss as a result of reducing inventories with aggressive pricing and heavy non-recurring expenditure on reorganising production methods.

Production costs were now lower and inventory levels much reduced.

Earnings per share were 0.39p (0.63p) or 0.41p (0.61p) diluted. The interim dividend is held at 0.22p.

24% increase pushes Bertam to £418,000

Bertam Holdings, the rubber and oil palm producer and property dealer, lifted pre-tax profit by 24 per cent, from £338,000 to £418,000, in the first half of 1991.

Turnover was £605,000 (£461,000) from which a trading profit of £218,000 (£105,000) was derived. Income from fixed assets investments came to £49,000 (£23,000). Interest receivable totalled £165,000 (£187,000), and associates' profits £38,000 (£80,000).

Earnings per share came to 1.45p (1.15p).

There was also an extraordinary profit of £327,000 (£262,000) mainly being the surplus arising from compulsory land acquisitions.

Crossroads launches £2.1m rights issue

Crossroads Oil Group, the USM-quoted oil and gas exploration company, announced substantially increased profits and turnover for the half year to September 30, together with a £2.1m rights issue.

The non-underwritten issue of up to 7.9m new ordinary shares at 28p is on a 1-for-5 basis. The proceeds will initially be used to reduce debt with the balance invested in development drilling programmes and the US offshoot Louisiana Offshore Ventures.

Profits were up from £16,000 to £296,000 on turnover ahead from £492,000 to £860,000.

Earnings per share came out at 0.75p (0.04p).

Anglovaal Group

Mining companies' reports – Quarter ended 30 September 1991

All companies mentioned are incorporated in the Republic of South Africa.

All financial figures for the quarter and progressive figures for the current year to date, including those of Loraine Gold Mines, Limited, are unaudited.

Rate of exchange on 30 September 1991: R1,00 = £0,20, £1,00 = R4,97.

Development results given are the actual sampling results. No allowances have been made for adjustments necessary in the valuation of the corresponding ore reserves.

Shareholders requiring copies of these reports regularly each quarter, should write to the Secretaries, Anglo-Transvaal Trustees Limited, 295 Regent Street, London W1R8ST.

Hartebeestfontein Gold Mining Co Ltd

Reg. No. 05/33925/06

Issued capital: 112 000 000 shares of 10 cents each

	Quarter ended 30 Sept 1991	Quarter ended 30 June 1991	Financial year ended 30 June 1991
Operating results			
Gold			
Ore milled ... t	725 000	748 000	3 003 000
Gold recovered ... kg	6 532	6 644	27 003
Yield ... g/t	9,0	8,9	9,0
Revenue ... R/t milled	300,37	305,10	290,20
Costs ... R/t milled	230,57	222,77	217,83
Profit ... R/t milled	69,80	82,33	72,37
Revenue ... R/kg	33 339	34 349	32 273
Costs ... R/kg	25 591	25 080	24 225
Profit ... R/kg	7 748	9 269	8 048
Revenue ... R000	217 771	228 216	871 469
Costs ... R000	167 161	166 634	654 144
Profit ... R000	50 610	61 582	217 325
Low-grade gold plant			
Ore milled ... t	421 000	425 000	1 741 000
Gold recovered ... kg	589	593	2 370
Yield ... g/t	1,40	1,40	1,36
Revenue ... R/t milled	46,23	46,25	43,10
Costs ... R/t milled	23,39	21,89	20,70
Profit ... R/t milled	22,84	24,36	22,40
Revenue ... R/kg	33 044	33 150	31 661
Costs ... R/kg	16 720	15 688	15 206
Profit ... R/kg	16 324	17 462	16 455
Revenue ... R000	19 463	19 658	75 037
Costs ... R000	9 848	9 303	36 039
Profit ... R000	9 615	10 355	38 998
Uranium oxide			
Pulp treated ... t	591 326	606 000	2 741 000
Oxide produced ... kg	64 337	64 487	287 212
Yield ... kg/t	0,11	0,11	0,11
Financial results	R000	R000	R000
Working profit – gold mining ...	60 225	71 937	256 323
(Loss)/profit from sales of uranium oxide and sulphuric acid ...	(3 420)	2 521	(13 765)
Non-mining income ...	7 092	6 900	34 480
Net tribute received ...	—	14	1 243
	63 897	81 372	278 281
Interest paid, stores adjustment and employee service benefits ...	314	(3 551)	(1 104)
Profit before taxation and State's share of profit ...	63 583	84 923	279 385
Taxation and State's share of profit ...	28 640	47 648	133 317
Profit after taxation and State's share of profit ...	34 943	37 275	146 068
Capital expenditure ...	5 542	9 078	28 820
Appropriation for loan repayments ...	445	111	1 732
Dividends ...	—	56 000	112 000
	5 987	65 189	142 552
Development			
Advanced ... m	8 253	8 766	39 417
Sampling results on Vaal Reef			
Sampled ... m	1 168	1 370	6 518
Channel width ... cm	67	56	59
Channel value – gold ... g/t	18,8	27,8	25,3
... cm.g/t	1 261	1 544	1 491
– uranium oxide ... kg/t	0,36	0,43	0,41
... cm.kg/t	23,92	24,07	23,94

Hartebeestfontein Gold Mining Co Ltd – *Continued*

Financial

The profit before taxation includes results of hedging transactions.

In terms of the Company's articles of association, the directors' borrowing powers are limited to R50 000 000. At 30 September 1991 borrowings totalled R4 355 000 (1990: R5 882 000), of which long-term borrowings amounted to R2 626 000 (1990: R4 421 000) and short-term to R1 729 000 (1990: R1 461 000).

Dividend

Final dividend No. 71 of 50 cents per share, declared in May 1991, was paid in July 1991.

Capital expenditure

Outstanding commitments at 30 September 1991 are estimated at R8 160 000 (30 June 1991: R8 000 000).

For and on behalf of the board

B.E. Hersov
D.J. Crowe *Directors*

Directors: B.E. Hersov D.M.S., Hon. LL.D. *(Chairman)*, B.L. Bernstein Hon. LL.D, D.J. Crowe, A.J. Field, J.J. Geldenhuys, L. Hewitt, G. Maude, Clive S. Menell, C.L. Sunter

Alternate directors: P.J. Eustace, K.M. Hosking, T.C. Rees, G.J. Robbertze, P. Taljaard, J.E. van Niekerk, R.A.D. Wilson

16 October 1991

Eastern Transvaal Consolidated Mines, Ltd

Reg. No. 01/08445/06

Issued capital: 86 333 560 shares of 2,5 cents each

	Quarter ended 30 Sept 1991	Quarter ended 30 June 1991	Financial year ended 30 June 1991
Operating results			
Ore milled ... t	89 900	87 300	332 400
Gold recovered ... kg	866	915	3 362
Yield ... g/t	9,6	10,5	10,1
Revenue ... R/t milled	310,33	351,89	323,74
Costs ... R/t milled	229,94	223,04	223,52
Profit ... R/t milled	80,39	128,85	100,22
Revenue ... R/kg	32 216	33 573	32 008
Costs ... R/kg	23 871	21 280	22 099
Profit ... R/kg	8 345	12 293	9 909
Revenue ... R000	27 899	30 720	107 612
Costs ... R000	20 672	19 471	74 298
Profit ... R000	7 227	11 249	33 314
Financial results	R000	R000	R000
Working profit – gold mining ...	7 227	11 249	33 314
Non-mining income ...	517	690	2 944
	7 744	11 939	36 258
Prospecting expenditure ...	1 232	2 605	8 818
Stores realisation adjustment ...	—	124	124
Profit before taxation ...	6 512	9 210	27 316
Taxation ...	2 956	3 948	10 287
Profit after taxation ...	3 556	5 262	17 029
Capital expenditure ...	362	1 701	4 794
Dividends ...	—	6 044	12 087
	362	7 745	16 881
Development			
Advanced ... m	1 402	1 605	6 592
Sampling results:			
Sampled ... m	726	779	3 421
Channel width ... cm	250	237	249
Channel value ... g/t	5,8	12,2	5,4
... cm.g/t	1 444	2 877	1 342

Financial

The profit before taxation includes results of hedging transactions.

Operations

The lower kilograms recovered, yield and gold price received were due to the planned annual rooster shutdown during the quarter.

Dividend

Final dividend No. 82 of 7 cents per share, declared in May 1991, was paid in July 1991.

Capital expenditure

Outstanding commitments at 30 September 1991 are estimated at R354 000 (30 June 1991: R331 000).

For and on behalf of the board

R.A.D. Wilson
D.J. Crowe *Directors*

Directors: R.A.D. Wilson *(Chairman)*, D.J. Crowe, J.J. Geldenhuys, B.E. Hersov D.M.S., Hon. LL.D, Clive S. Menell, G.J. Robbertze, J.E. van Niekerk

Alternate director: B.J. Forston

16 October 1991

Loraine Gold Mines, Ltd

Reg. No. 05/39136/06

Issued capital: 16 366 986 shares of R1,00 each

	Quarter ended 30 Sept 1991	Quarter ended 30 June 1991	Financial year ended 30 Sept 1991
Operating results			
Ore milled ... t	340 000	352 000	1 416 000
Gold recovered ... kg	1 666	1 714	7 069
Yield ... g/t	4,9	4,9	5,0
Revenue ... R/t milled	173,21	170,67	166,89
Costs ... R/t milled	188,15	178,27	180,25
(Loss) ... R/t milled	(14,94)	(7,60)	(13,36)
Revenue ... R/kg	35 348	35 051	33 429
Costs ... R/kg	38 398	36 610	36 105
(Loss) ... R/kg	(3 050)	(1 559)	(2 676)
Revenue ... R000	58 890	60 077	236 312
Costs ... R000	63 971	62 750	255 229
(Loss) ... R000	(5 081)	(2 673)	(18 917)
Financial results	R000	R000	R000
Working (loss) – gold mining ...	(5 081)	(2 673)	(18 917)
Profit from sales of pyrite ...	327	328	1 641
Non-mining income ...	2 574	2 417	10 789
	(2 180)	72	(6 487)
Interest paid, stores adjustment and service benefits ...	411	234	1 115
Royalties paid ...	—	—	8
(Loss) before taxation ...	(2 591)	(162)	(7 610)
Taxation ...	—	—	—
(Loss) after taxation ...	(2 591)	(162)	(7 610)
Capital expenditure ...	795	1 120	4 290
Appropriation for loan repayments ...	109	108	380
	904	1 228	4 670
Development			
Advanced ... m	3 937	5 100	19 305
Sampling results:			
Kimberley reefs			
Sampled ... m	165	134	662
Channel width ... cm	100	96	92
Channel value ... g/t	5,4	6,4	8,0
... cm.g/t	537	616	741
Basal reef			
Sampled ... m	402	204	998
Channel width ... cm	9	10	9
Channel value ... g/t	81,3	42,1	78,5
... cm.g/t	706	421	707
Eldorado reefs			
Sampled ... m	556	548	2 254
Channel width ... cm	85	125	131
Channel value ... g/t	8,0	5,6	5,1
... cm.g/t	680	702	669
Total – all reefs			
Sampled ... m	1 124	946	3 904
Channel width ... cm	60	94	93
Channel value ... g/t	11,2	6,6	7,4
... cm.g/t	668	624	691

Ore reserves

The total ore reserve at 30 September 1991, based on a gold price of R34 400 per kilogram, is estimated as follows:

	Kimberley reefs	Basal reef	Eldorado reefs	Total and averages
Tonnage ... t	295 000	922 000	486 000	1 703 000
Stoping width ... cm	137	90	134	106
Value ... g/t	9,0	9,4	10,0	9,5
... cm.g/t	1 231	845	1 345	1 010

Financial

The financial results include the profits arising from hedging transactions.

In terms of the Company's articles of association, the directors' borrowing powers are limited to R35 000 000. At 30 September 1991 borrowings totalled R4 416 000 (1990: R4 776 000) of which long-term borrowings amounted to R4 074 000 (1990: R4 508 000) and short-term to R342 000 (1990: R268 000).

Hedging transactions

As at 30 September 1991 the Company had sold portions of its future gold production as detailed below:

Quarter ending	Kg of gold sold	Forward price per kg sold
31 December 1991	718	R35 998
31 March 1992	718	R37 180
30 June 1992	718	R38 298
Month ending		
31 July 1992	239	R39 046

Capital expenditure

Outstanding commitments at 30 September 1991 are estimated at R632 000 (30 June 1991: R342 000).

Mine closure costs

It is currently estimated that, in the event of mine closure, all retrenchment, rehabilitation and associated costs would be adequately covered by existing cash resources and the net proceeds from the sale of Company assets.

No provision will be made for closure costs until a firm decision on the future of the mine is taken.

For and on behalf of the board

D.J. Crowe
R.A.D. Wilson *Directors*

Directors: D.J. Crowe *(Chairman)*, P.J. Eustace, J.J. Geldenhuys, B.E. Hersov D.M.S., Hon. LL.D, B.J. Lawrenson, G. Maude, Clive S. Menell, J.E. Olivier, S.W. van der Colf, R.A.D. Wilson

Alternate directors: J.H.J. Burke, B.J. Forston, T.C. Rees, G.J. Robbertze, K.A. West

16 October 1991

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FINANCIAL TIMES SURVEY

■ Dartford's symbol of new-found confidence: See **Page 2**

NORTH KENT

■ Gravesend seeks to recover its heyday: See **Page 2**

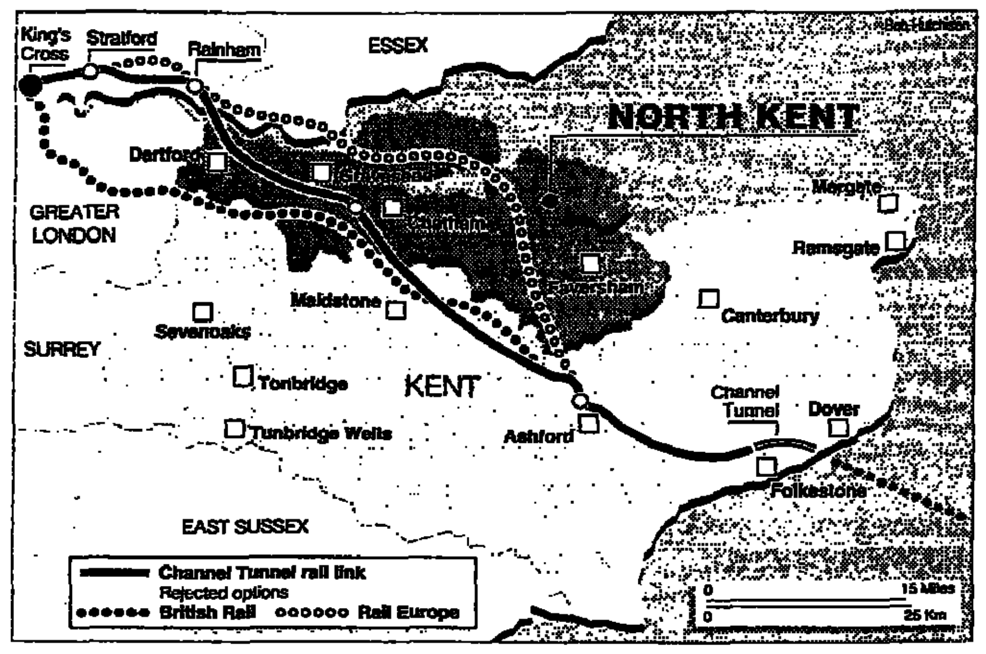
Wednesday October 16 1991

North Kent, compared with other parts of the south-east, has suffered from severe industrial decline and infrastructure problems, but the new high-speed Channel rail link to London offers enhanced opportunities for development, says **Stewart Dalby**

A long road to recovery

Picture: Ashley Ashwood

Opening soon: Dartford's new £120m road bridge across the Thames.



North Kent, showing the chosen route for the £4.5bn Chunnel link, announced a week ago – and the rejected alternative routes. The government is to commission a study of the potential business and industrial opportunities of the East Thames Corridor.

WHILE in other parts of the county the announcement by Mr. Malcolm Rifkind, the Transport Secretary, at the Conservative Party conference, last week of the proposed new Channel Tunnel route, has been greeted mainly with relief, in North Kent the reaction has been altogether more positive.

The area, which stretches along the Thames from East London, taking in the boroughs of Dartford, Gravesham, Rochester-upon-Medway, Gillingham and Swale, has long felt that its relatively poor communications put its industrial development efforts at a disadvantage compared with other parts of the south-east.

The high speed rail route linking Dover and the Continent with London will change this. Albeit at the cost of some disruption, the building of the link – due to be completed some time early in the first decade of the next century – will result in a period of intense building activity within the area, at the end of which North Kent will be firmly on the international railway map.

Though many of the services will deliver passengers straight into Stratford in east London, and then Kings Cross, others will stop at intermediate stations, making these towns attractive potential locations for manufacturing and service companies seeking to position themselves between London and the tunnel.

If plans by the Environment Secretary, Mr. Michael Heseltine for of a new town east of London, extending the developments which have already taken place in London Docklands, also come to fruition, the region as a whole could be set for rapid growth.

Officials in local government certainly feel that the siting of the high speed link offers enhanced development opportunities.

"As a development opportunity, the announcement of the new high speed route is super news. Were it just a question of high speed trains screeching through the county, then it would not affect us. But I understand there is to be a station at Medway Parkway . This will probably be in Strood . This is four minutes from our offices.

"We will be locked into Europe and will be able to attract investment on that basis," Mr David Homewood, the Economic Development Officer for the Rochester-upon-Medway City council said.

Dartford, at the other end of North Kent to the Medway towns, is slightly less euphoric. Mr Paul Bailey, the spokesman for the district council said:"The key to our immediate development is the new Thames crossing, the Dartford bridge, which is due to open on October 30. But we will be fighting to get a station if and when the high speed link is built."

Blue Circle Industries, a major land owner in Dartford and elsewhere in North Kent, has welcomed the news.

Until now, North Kent has been like a battalion of troops, cut off behind enemy lines. While high technology and service companies were fanning out around the rest of the south-east in the 1970s, this area of land, east of the River Thames was left – in common with some of Britain's other older industrial regions – with a continued dependence on more traditional manufacturing sectors, including heavy engineering, and, in particular, defence contracting, papermaking, cement and motor components as its main sectors of employment. Much of the area's employment, too, was concentrated in the hands of large industrial groups.

When the recession of the early 1980s struck hard at manufacturing companies, North Kent took heavy casualties. Several large companies virtually disappeared or severely reduced operations. To add to the region's woes, the Royal Navy dockyard at Chatham closed in the early 1980s throwing almost 9,000 out of work.

Male unemployment in the area looked as if it was heading for 25 per cent. It never quite reached that figure but peaked in several places in 1985 well into double figures and was above the national average at that time. It was comparable to black spots in the North of England, Scotland and Wales and certainly well above the level for the rest of Kent and the south-east – despite its proximity to London.

So different was North Kent from other parts of the county in those years that a separate North Kent strategy was launched. It involved the Kent County Council, the boroughs of Dartford, Gravesham, Gillingham and Swale and the city of Rochester-upon-Medway.

The strategy, which is continuing today, aims to diversify the economy with science-based and service companies so that the area, where nearly 500,000 people live, becomes less dependent on older forms of manufacturing and so that fewer people have to commute to London for work.

The economy has changed, with light engineering gaining importance over heavy engineering, and with other diversification taking place. Unemployment in January 1990 was not out of line with that of Kent as a whole and below the national average.

But this low figure probably disguises the high level of commuting which grew as London's white collar economy overheated in the late 1980s.

Now that recession has struck anew, unemployment has once more risen above the level for Kent as a whole, and the old dependence on non-growth areas of manufacturing is again being exposed.

The failure to secure a better balance in its industries – when areas to the north west and south of London have diversified their economies into high technology and service industries – is blamed by officials locally on lack of investment in the area by the government, particularly in the infrastructure.

While areas to the west, south and north of London have developed largely because motorways have opened them up, North Kent beyond Dartford, is a spider's web of twisty roads. It is not just a question of the main 'A' roads. There is plenty of land for houses, shops and factories, but in many cases there is poor access.

In part, this is because Chatham and Gravesend were ports where the approach was by sea and were therefore self-contained communities. It means however that although the rail link which will also offere the prospects of improved commuting to London, is welcomed, the area will still be pressing for better road links including a comprehensive system of bypasses and tunnels or other crossings.

Major investment of this sort, it is pointed out, could enable the area to play a major role in accommodating the 570,000 homes that will needed in London and the south east by the beginning of the next century, all of which could be built in the East Thames Corridor. The failure so far to open up this area so close to London raises a host of questions about government industrial policy, regional policy, relations between central and local government and the use of quangos like urban development corporations to regenerate old industrial areas.

The county and district councils feel that after what they see as more than 10 years of systematic emasculation of their spending powers, they do not have the capital budgets to build the infrastructure.

The private sector is rarely prepared to develop sites for offices and 'B1' light industrial premises unless the abnormal costs are accounted for – which means the land needs to be fully serviced, and access good.

Were North Kent situated in other old industrial regions like the north of England or even an inner city area like London's Docklands, it would have had resources directed to it in the name of regionalism or urban revival.

There would not only be regional selective assistance from the British government,

Continued on page 3

NORTH KENT 2

Facts about the area

THE AREA known as North Kent stretches from the eastern outskirts of London through Dartford, Gravesend, the Medway towns and then on to Sittingbourne and Faversham, taking in the Isle Grain and the Isle of Sheppey. It is a distance of about 30 miles from the fringe of London to just past Faversham.

☐ The area has five district councils: the Borough Councils of Dartford, Gravesham, Gillingham and Swale and the City Council of Rochester upon Medway. Together with the Kent County Council, these district authorities have drawn up a strategy document called, *North Kent – A Strategy For Action, 1991-1994.*

■ **POPULATION:**
Just under 500,000 people live in the area; Gillingham Borough on the River Medway has a population of 94,600; Gravesham Borough, 88,700; Swale Borough, 116,800; the city of Rochester Upon Medway, 147,800.

☐ The North Kent workforce numbers just over 220,000; of these, 75,000 commute into London, but there is also an inflow of workers into the area. Unemployment in June 1991 was 8.4 per cent. This compared with a national average of 7.7 per cent, an average of 7.1 per cent for Kent as a whole, and 6.7 per cent for the south-east region.

☐ The main industries are electrical engineering, in particular the manufacture of radar equipment for the defence industry; pharmaceuticals; vehicle components; building products; and paper manufacture.

☐ Unusually for the south-east of Britain, some 30 per cent of the workforce is still engaged in manufacturing industry. This compares with a national average of 23.7 per cent.

☐ Chunnel route: the government's preferred easterly route for the Channel Tunnel high speed rail link crosses the Thames north of Dartford before coming to the surface to cross the eastern end of Rainham Marshes, Essex; running adjacent to the A13, the link then enters a tunnel beyond Barking Creek and goes via Stratford to London's King's Cross.

■ **CONTACT POINTS:**
Useful telephone numbers, related to economic development, include:

☐ Kent County Council, Economic Development Department, Maidstone, (0622) 696082.
☐ Kevin Kingston, Economic Development Officer, Gravesham Borough Council, Gravesend (0474) 337585.
☐ Peter McLean, Business Liaison Officer, Gillingham Borough Council,(0634) 828687.
☐ David Homewood, Economic Development Consultant, Rochester upon Medway City Council, Medway (0634) 732716.
☐ Robin Wickenden, Economic Development Officer, Dartford Borough Council, Dartford (0322) 343114.
☐ Peter Jolly, Economic Development Officer, Swale Borough Council, Sittingbourne, (0795) 24341.
☐ Jenny Aldridge, Swale Enterprise Agency, Sittingbourne, (0795) 427623.

Ambitious developments at Dartford

Symbol of new-found confidence

WHEN the Queen officially opens the new £120m Dartford river crossing on October 30 it will mean more to the local community than just another route across the Thames, easing the congestion that faces motorists each day.

The bridge, the first to have been built downstream from the City of London since 1894, and, more importantly, the first to have been entirely privately financed this century, now towers over the surrounding landscape, in a way symbolising the borough's new self-confident mood.

Situated strategically to the east of London, with the M25 and A2 running through the borough, Dartford has seen a shift in its industrial base over the last decade from heavy engineering, cement and paper-making, to light industry, commerce and distribution.

But Dartford has been fortunate in having weathered the worst of the industrial and employment shake-out during the 1980s. With a population of some 80,000, the unemployment rate has been much lower than the county average, being quoted in March this year at 5.6 per cent, comparing with 6.7 per cent for Kent as a whole.

Dartford has been helped by the fact that Wellcome, the international pharmaceuticals group, which has its main production site in the town employing some 3,000 people, has expanded.

Julian Underhill, forward planning officer at the borough council, comments that it was not until the completion of the M25 in the mid-1980s that there was a realisation of improved accessibility "co-inciding with the increasing frustration felt by many people working out of expensive locations in London."

What is known as the East Thames corridor, identified by the government as an area enclosed by north Kent and south Essex able to take development pressure off overcrowded land to the west of the capital, highlighted Dartford as a strategic centre – the county council has also focused on the area as one of three key sites in the region suitable for economic development.

Nevertheless, a continuing problem for the area is that some 45 per cent of the population continues to commute into London, a fact which the borough council wants to turnround. As the council states in its draft local plan, published last January, one reason for the high-level of commuting "reflects a relative lack of major office employment."

Concepts such as Crossways, a 200-acre business park now

Dartford has been fortunate in having weathered the employment shake-out

in an advanced stage of construction, are one way by which a turnaround in the direction of the labour market is being attempted.

The project, the UK's largest business park, is being developed by Blue Circle Properties, a wholly-owned subsidiary of Blue Circle Industries. Blue Circle has a long association with the borough, formerly concentrating on cement working, and it is on a quarry and landfill area that Crossways has been built.

The first phase, now fully let, provides warehousing and office buildings. Companies which have moved in include Asda which located its 300,000 sq ft regional distribution depot there three years ago to supply its supermarkets in the south east. Fyffes has also built a new 50,000 sq ft depot which takes into account Crossways' proximity to the Dartford International Ferry Terminal (DIFT), one of the country's fastest growing ports.

Since it opened in October 1986 the £20m terminal, jointly owned by Blue Circle Industries and Municipal Mutual Insurance, has increased the frequency of its services, providing a roll-on/roll-off service three times a day in each direction with Zeebruge and once a day to Esbjerg in Denmark.

Maersk, the Danish shipping company, is to lease the terminal and is likely to expand services. David Blencowe, general manager, said that although there had been a drop in volumes because of the recession the opening of the bridge "will be a great benefit."

Stakis, the Scottish-based hotel group, is building a 180 bed 4-star hotel in Crossways, while Campanile, a French group, has plans for a 160-bed hotel which will largely cater for commercial traffic. These developments will provide much needed accommodation for the expected increase in business people into the town.

The council has an ambitious and imaginative strategy for development of north Dartford which will include a co-ordinated transport infrastructure, particularly the construction of a northern bypass.

Proposals include a landscaped, high-quality mixed office and industrial development, together with a high-tech business and science park which would be located on the site of the Joyce Green hospital, which will become redundant with the planned construction of a new regional hospital at Darenth Park.

The council also hopes that Thames Polytechnic, which already has links with Wellcome, may relocate to a site here, although a spokesperson for the college, which has a campus in the town, said that this was one of a number of proposals currently being examined.

Connected with this development is a proposed £500m, regional shopping and leisure centre, called Bluewater, which has received outline planning consent. The site used to be in the Green Belt, but following consultation the boundaries have been redrawn thereby clearing Bluewater for development.

This centre is seen to be complementary to improvements recently carried out in the town centre, including a £25m investment by the Burton Group in a new shopping complex which opened last year. An open air pedestrian mall, called Copperfields, offers an additional 31,000 sq ft of shop and office space.

Bluewater, which would compare with existing centres such as Brent Cross, Milton Keynes and the Metro Centre in Newcastle, would be built on a former chalk quarry owned by Blue Circle Industries, and is being managed by London and General Property. It envisages a shopping centre with two department stores, three other large stores, a major supermarket and a further 260 retail shops.

In total, it is estimated that there would be 1.5m sq ft of space. The quarry will be turned into four lakes capable of providing sailing and other recreational facilities. The developers claim that it would generate some 5,000 jobs.

For a town that was described over 200 years ago as "a handsome and wealthy town ... with several good inns," Dartford has come a long way.

John Pitt

GRAVESEND

Hoping for a fresh heyday

FEW British towns list Red Indian memorials among their assets. Not so Gravesend. The official guide to the Thameside community highlights the remains of Princess Pocahontas, daughter of Chief Powhatan, as one of its main tourist attractions.

Moves to attract visitors are nothing new for the town where Pocahontas died and where a statue portrays her as a Wild West squaw. Brought to London by her English husband, she used Gravesend as a river gateway to the city and died there in 1617 when she was taken ill on her return voyage to Virginia.

The town now hopes to capitalise on a history ranging from the demise of Pocahontas to its medieval monopoly on river transport to London. In a small way, Gravesend is trying to re-establish its 19th century heyday when steamboats plied the Thames and established it as one of England's first resort towns.

An ambitious scheme is under way to renovate the town's historic buildings and pedestrian walkways. According to the local authority for the area, Gravesham Borough Council, the scheme reflects a new determination to alter that area's reputation as a neglected corner of the south east where traditional industry has declined and where half the working population commutes each day to London.

These cosmetic changes follow eight years of more serious surgery to stem the flow of business and jobs out of the area.

Moves to revitalise the local economy followed years of decline which peaked in 1982 with local unemployment at 16.37 per cent. A new initiative was planned to offset cutbacks by traditional manufacturers such as Imperial Paper Mills, one of the towns staple employers, where 1,250 jobs were lost over three years. The initiative began in 1983 with the designation of two enterprise zones in the town. The zones offered attractive incentives including simplified planning, exemption from rates and capital allowances.

Local officials say the zones – the council-run Springhead Industrial Park and privately-owned Imperial Business Estate – are among the most successful in the country. More than 50 units have been built and occupied on the Springhead site while the Imperial development has attracted large retail stores such as Asda and Comet.

However, the honeymoon period of new companies moving in and soaking up the unemployed is almost over. Mr Peter Dyke, leader of Gravesham Borough Council, says: "The enterprise zones helped us weather the recession but their 10-year life will soon expire."

The recession, has, however taken it toll on the zones. A number of small companies have left, some units remain vacant and unemployment has doubled to around eight per cent in the past 12 months.

Faced with a slump in commercial development, the council has also deferred plans to build an office and residential complex in the town. But Mr Adrian Whittaker, development and estates surveyor, refuses to be downcast.

"In 1982 the town was in fairly serious decline but we're not seeing the same kind of problems now. We've created 1,000 jobs in recent years and although the current recession has led to job losses in both blue and white-collar sectors, the town is holding up well."

Mrs Ruth Kemp is not so optimistic. The owner of the Kemp Staff Agency says: "There are a lot of redundancies and we've got very few jobs on offer. There was quite a recruitment drive with the development of the enterprise zones but now they're laying people off and lots of local companies have closed."

Small companies are having to diversify in order to survive and the Kemp Staff Agency is no exception. The company has set up a training centre for office skills and also offers secretarial services.

The borough council also hopes to diversify. It has encouraged renovation of old buildings for commercial use and identified 13 new sites for potential office and business development. But Mr Whittaker says: "We are circumspect about realising the potential of these sites. We're

An imaginative scheme is under way to renovate the town's historic buildings and pedestrian sidewalks

getting enquiries from occupiers, but not development companies."

Developers might find Gravesend a more attractive proposition if it had better transport links. Local businessmen identify poor road and rail routes as a potential deterrent to new investment. The council wants a Thameside trunk road developed for industrial use and is demanding better rail services – "in time-keeping, rail services are not much better than 1911 and we've been expecting new trains since 1982," says Mr Whittaker.

He is also wary of the government's decision to route the fast rail link to the Channel tunnel through North Kent. The benefits for Gravesend are uncertain because developers have not produced detailed site plans or assessed the full effects of construction on the local environment.

The area's best hope, according to the council, is for a station serving the proposed Bluewater retail centre between Gravesend and Dartford. Ove Arup, the developers behind the north Kent route, included such a station in their original plans but Mr Whittaker says there is no guarantee one will be built.

The roads, meanwhile, are "a nightmare" according to Mr Michael Potter, marketing manager of Rodenstock, the high-technology optical company based on the Springhead Industrial Park. "In theory, the roads might be good, but they're terrible in practice."

But the roads, he says, are just one of the area's problems – "it's more difficult to get work now than in the 1970s and I find nothing appealing about this area.

The council says the prospects are not as bleak as Mr Potter suggests. Rodenstock itself is expanding and recently hired 39 new staff. Meanwhile, Customs and Excise has moved its administrative centre to Gravesend from London and the Port of London Authority has a maintenance base at the riverside.

Two purpose-built shopping centres attract customers from Kent and Essex. And new environmental schemes are under way to improve the town's appeal to visitors.

Councillors and businessmen know that Gravesend has the potential to be a flourishing town. The problem is realising that potential. Infrastructure problems are the main barrier to further development.

Businesses are handicapped by the lack of a direct Thameside road into London; retailers say there is not enough parking; commuters criticise the old trains; and plans for a fast rail link to the Channel Tunnel are unlikely to include a Gravesend interchange.

Further development is also threatened by possible competition from the Medway towns and skills shortages, according to the council's economic development strategy.

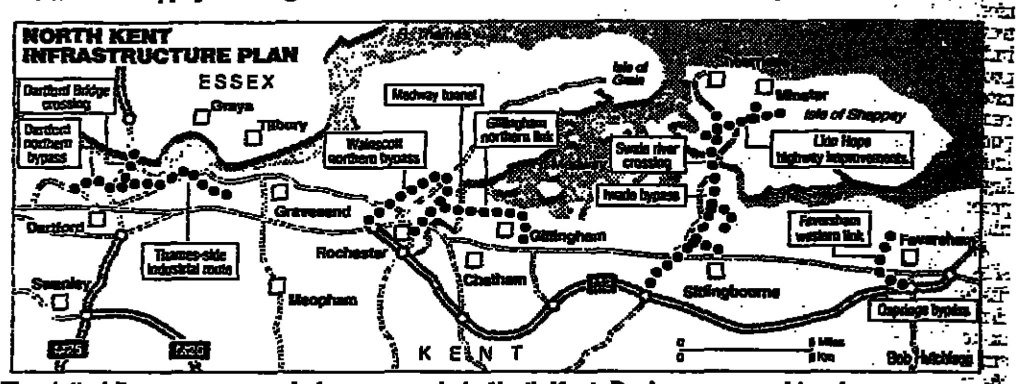
The river, for centuries the source of local business, is now regarded by some councillors as the town's best hope for the future. Council leader Peter Dyke is an enthusiastic supporter on an express river bus for commuters.

The waterway which once brought Pocahontas to the town has great potential, says Mr Dyke. "It's the only eight-lane highway into London without jams. We must take advantage of it."

Tim Burt

Picture: Colin Beere

The Isle of Sheppey: seeking re-vitalisation and an answer to infrastructure problems.



The dotted lines are proposals for new roads in North Kent. Businessmen and local councillors say that infrastructure problems and severe traffic congestion is the main barrier to further development in many parts of the region.

Frustration on the Isle of Sheppey

Plan to ease the traffic jams

IMAGINE an island: then imagine that it has only one road and one bridge leading onto it. That road carries up to 22,000 vehicles each day, including large numbers of car transporters which wriggle their way noisily and sometimes dangerously towards the bridge.

But the bridge is often raised, causing long, nightmare traffic jams to build up on both sides.

All this sounds unreal – but it happens almost every day on the A249 into and out of the Isle of Sheppey.

The island's extreme infrastructure problems need solving, according to Bill Croydon, chief executive of Swale Borough Council – and until there is another crossing, he says, the development of the island itself, which is home to the country's fourth largest port at Sheerness, will have to wait.

Mr Croydon and the council's economic development unit do have the plans for the re-vitalisation of Sheppey, an island that everyone in the area admits has a very depressed economy. And he is thinking big. Together with Richard Ellis, as property consultants, Citibank and the joint administrative receivers of Ridham dock, a £500m scheme has been packaged, gone to public inquiry and is now awaiting the inspectors report, due later this year.

If the government gives the go ahead, Mr Croydon believes that "the Swale project," as it is known, would provide a second river crossing; boost the local economy, generate new life for Sheppey and, hopefully, rid the area of an "island mentality."

"If the infrastructure was put in place," says Mr Croydon, "I think that the area could take a quantum leap forward."

The Swale project has four elements:

- The development of 566 acres at Ridham docks.
- Residential development at Minster, combined with schools and medical facilities.
- Refurbishment of Queensborough, once occupied by the Dutch in 1667, with up to 300 waterside apartments and houses.
- The continued development of the port of Sheerness, with further reclamation of 250 acres at Lappel Bank.

One of the keys to the proposal is the development of land at Ridham. Ownership of the port is in the hands of receivers and Mr Croydon, together with Richard Ellis, acting on behalf of the receivers, say that development here would pay for a second crossing.

This has been estimated to cost in the region of £60m, would use existing technology of Dutch construction, and could be quickly built.

Kent County Council and the Department of Transport have already given backing to the upgrading of the A249, which is anticipated to begin in 1992, with completion scheduled two years later.

Support for the second crossing comes from Mr Peter Vincent, chief executive of Medway Ports Authority, a Trust Port which is in the process of privatisation. Recent investment in the port, one of the island's largest employers along with Sheerness Steel, has been more than £25m, with two new berths having been built, in addition to a 100,000 sq ft cool store which opened last

The only bridge to the island is often raised, causing long traffic jams to build up on both sides

year.

These facilities have put Sheerness into a prominent position internationally, able to rival both Antwerp and Rotterdam. The UK's biggest importer of cars and fruit Sheerness has a number of expansion plans prepared, among which is a concept to provide a "ship-to-shelf" operation.

Using the cool store, the proposal is that after fruit has arrived at the port it would be packaged and even priced so that it could be put directly onto supermarket shelves.

But for Mr Vincent the lack of a modern infrastructure is partly frustrating such development. Already the single-carriageway A249 is choked with traffic, which includes the car transporters which service the facility at the port – Sheerness handles some 400,00 vehicles annually, from manufacturers such as Peugeot, Citroen, Toyota, Mazda, and General Motors. The council has estimated that some 22,000 vehicles a day use the A249 into and out of the island.

"You may provide a fantastic service here – but then you tell them that the bridge might be out of service and you have no answer," says Mr Vincent.

"The message we are trying to get across is that if we don't get the second crossing, then it is possible business could go out of the country, to Antwerp and Rotterdam, for instance. Expansion would have to be put on ice if the public inquiry finds against and, in the longer-term, we as a nation would lose out."

However, there is another side to these development proposals. At the public inquiry into the Swale project, opposition was led by the Nature Conservancy and the Royal Society for the Protection of Birds, on environmental grounds.

The Swale and the north Kent marshes provide internationally-recognised and protected habitats for birds, plants and insects. The Swale estuary is also designated as a Special Protection Area, supported by EC directive.

Mike Clarke, RSPB regional conservation officer explains: "We contested that the proposals were in breach of the Kent structure plan and said that there was adequate housing and industrial land supply within the plan elsewhere in the area.

"We were not saying that there was no scope for development, but we argued that a smaller scale project was more appropriate: it is a question of gearing development to the social and economic needs of the area. Our view was that the scale of the development was geared to provide the funds to pay for the crossing and that it was quite beyond those needs: it was like taking a sledgehammer to crack a nut."

Whichever way the inquiry goes, and no one is predicting the result, one positive benefit to have come out of the Swale project is that attention has been focused on Sheppey. With a winter population of some 36,000, swelled by as many as 20,000 in the summer, Sheppey has a reputation as a resort centre for the south-east. It is also one of the cheapest places to buy a house, simply because of the difficulties in getting onto the island.

Mr Croydon wants the image of the island to change: "Every morning, 5,000 cars driven by youngsters come off the island to go to jobs elsewhere; while, in the other direction, the managers who run some of the businesses and industry are travelling in the other direction. What we want to do is make Sheppey a place where people both want to work and live, by creating a mix of housing and industry."

John Pitt

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LAND AVAILABILITY

Access is a problem

NORTH KENT may have various troubles, with or without a high speed rail link but it is not short of land, some of it semi-derelict, for potential development of business parks, houses or shops and leisure use. The problem is gaining access to the land.

There is still some enterprise zone land left. The North West Kent Enterprise Zone includes six sites, totalling 372 acres. Five of these were designated in October 1983.

Springhead Enterprise Park and Imperial Business Estate are in Gravesham Borough. Temple Industrial Estate (including Saxon Place) and the Medway City Estate – are in Rochester upon Medway City; and the Gillingham Business Park is in Gillingham. The sixth, known as Chatham Maritime, was designated in 1986 and falls mostly in Gillingham Borough with part in Rochester upon Medway.

Enterprise zone status confers considerable benefits on developers or self-build companies. These include: exemption from local authority rates on industrial and commercial property(but not on water rates or other charges); 100 per cent capital allowances for corporation and income tax on all industrial or commercial buildings of any size for any purpose; greatly simplified planning control.

All development within the sites is eligible for these benefits for ten years from designation. This means that the status for five of the six zones will end in 1993. Given the scope of the tax breaks it is hardly surprising that most of these sites are largely taken up. The two zones in Rochester are virtually full, although redevelopment and refurbishment does take place.

In Gravesham, the 27 acres at Springhead are just about taken up, although only two thirds of Imperial has been developed. The local authorities want to fill the remaining third with high quality office developments. All but nine acres of the 120-acre highly successful Gillingham Business Park remain to be developed.

The Gillingham Park is home to North Kent's two Japanese manufacturers, with a third Japanese concern looking likely to join them. This estate is managed for the local authorities by Grosvenor Properties.

Chatham Maritime was designated later than the other sites, so therefore has longer to run. Its status does not expire until 1996. So far, there has been only one speculatively built office building, the Compass Centre, and Colonial Mutual Assurance is building its own headquarters. There is plenty of the 62 acres of enterprise zone land left for development.

But the enterprise zone represents only a small part of the land which could be developed. The North Kent Strategy for Action 1991-94 document estimates that there are nearly 800 acres (350 hectares) on which developments are committed or planned. This is almost certainly a severe underestimate. Some 500 acres of development could take place in Dartford alone.

Dartford, through which the M25 runs, has lots of areas which were old gravel or chalk pits. Blue Circle Industries is thought to own between 5,000 and 6,000 acres in Dartford Borough Council area. The council itself owns nearly 200 acres.

Much development has already taken place in and around Dartford. A ferry terminal has been built. Phase two of the Crossways Business park just next to the M25 is almost complete. Phase one consisted of around 200,000sq ft of industrial and office floorspace. When completed Crossways could have some 2m sq ft of industrial/office and retail floorspace.

Picture: Colin Beere

View of the new Dartford Bridge: helping to ease congestion.

Blue Circle Industries is hoping to press ahead with the massive Blue Water Park for which planning permission has been received. This £500m parkland and retail development could amount to 1.5m sq ft of shopping (260 outlets) plus four lakes, and 125,00 sq ft of leisure facilities.

It was hoped that work could start next year. The Stakis group is building a four-star hotel close to Crossways and three other hotels are planned. The council wants to develop its various plots of land in the centre and elsewhere.

Moving from west to east through North Kent, Gravesham Borough Council has identified a 24-acre site apart from the enterprise zones and close to the M2 that it wants to bring on for high quality office developments. In the Medway area, north of Rochester, Highland Participants have built a container port which is now operational on a 160 acre site, with a planned 42 acres for industrial development and 12 acres for road/rail and warehousing provision.

British Gas has permission to construct a liquefied national gas Terminal.

Just before the Isle of Grain, there is a planning application to develop an area of Kingsnorth Hoo. The idea is for B1 light industrial/office and B8 warehousing developments on 250 acres.

In Chatham there is Chatham Maritime. The 62 acres of enterprise zone is a small part of the old dockyards which totals 350 acres for redevelopment.

Further south-east on the Isle of Sheppey, in Swale District, planning applications have been submitted to develop an industrial park at Ridham of 500 acres, and to reclaim 250 acres of foreshore at Lappel Bank to provide 125 acres for a new Sheerness Port extension, including eight new deep sea water berths, and a port-related business park on the remaining 125 acres. In addition, 3,000 houses will be built at Minster over 15 years.

Not all of these plans will come to pass, of course. The recession have, if not put paid to some schemes, at least slowed them down. Lionhope (Kent) which was to have masterminded the developments on the Isle of Sheppey now seems unlikely to be able to go ahead with the plans as originally envisaged. A more modest development might, however, be possible.

The Swale development plans have been called in by the Environment Secretary for examination because of environmental objections.

But the gap between commitment and plans and actual development is also in part due to the poor infrastructure.

Dartford, for example, has been held back by the severe congestion on the a M25 at the Dartford tunnel. This should be considerably eased when the Dartford Bridge opens later this month. The bridge will take traffic going one way and the tunnel the other.

Yet it is not just the motorways or main roads which are the problem. Dartford needs a northern by-pass if its development potential is to be realised and Gravesend an extension of this by-pass as a Thames Industrial route which would mirror the A13 on the northern side of the River Thames in Essex.

If the Isle of Grain and Kingsnorth Hoo are to develop then the A228 will also have to be upgraded. Chatham Maritime badly needs a Gillingham link tying up with a third Medway crossing and a Rochester by-pass. The Isle of Sheppey urgently needs a new crossing – preferably a tunnel.

Some of these links, such as the Gillingham link, *will* happen – but it is a question of *when*.

Others like the Sheppey crossing are more dubious.

Until something is done about the infrastructure in North Kent, the industrial land – which can cost below £200,000 an acre in Swale and is now around £500,00 in Dartford (it was a lot higher at the height of the economic buoyancy in 1988) – will await development.

Stewart Dalby

Chatham Historic Dockyard Trust

Heritage attraction

IT IS 10 years since the gloomiest of black clouds descended on the Chatham area with the government's decision to close the Royal Dockyard, bringing to an end four centuries of shipbuilding and repair for the Royal Navy. But gradually life – and business – has returned to the area. Chatham has found a future in the past, with the dockyard's new role as a museum.

After the final closure in March 1984, most of the vast naval base, some 340 acres, moved into the control of English Estates, with proposals to transfer use of the site to offices, high technology, light industry and homes. The Chatham Historic Dockyard Trust was established to manage the oldest part of the dockyard – an area of 80 acres containing what is thought to be the highest concentration of Scheduled Ancient Monuments in Britain: 47 out of 100 buildings.

The trust, with government backing of £11.35m, had a dual purpose: conservation with regard to the buildings' architectural, historical and archaeological significance; and to increase public knowledge of, and interest in, the dockyard. From these aims evolved a strategy to create a living and working museum, combined with restoration of the buildings and landscape.

The trust has made good progress so far: in a few years, the Historic Dockyard has established itself as one of Britain's top heritage attractions, recently clocking up its 500,000th visitor.

The number of admissions to the Historic Dockyard has grown steadily: 68,000 in 1988, 95,071 in 1989, 110,685 last year. The estimate for 1991 is 125,000.

The fast growth of the dockyard as a heritage attraction was acknowledged in 1990 by the English Heritage Monitor. At the same time, it was awarded two Civic Trust commendations for restoration and its new Wooden Walls gallery won the English Tourist Board's highest accolade, an England for Excellence award.

For many people, the highlight of a visit to the museum – which lasts an average of four hours – is this new exhibit. Costing £4m, it is housed in the white weatherboard former mast houses and mould loft. It uses a combination of static displays, audio-visual aids and animatronics to recreate the many stages in the construction of a 100-gun first-rate warship over 200 years ago, during the Seven Years War.

But the exhibit most in keeping with the trust's aim of creating a "living, working museum" is the Ropery. This is housed in Europe's longest brick building – just over a quarter of a mile long – which was restored at a cost of £3m. This is run by a private concern, Master Ropemakers, which uses methods dating back to the 18th century to produce ship's rope on a commercial basis.

Various 18th century skills are still being used, too, in the Sail and Colour Loft, producing flags and sails to order. Buildings which do not lend themselves readily to museum purposes are let out. To date, 60 tenant businesses have taken space, ranging from crafts workshops to office tenants, and including one of Medway's biggest ship repairers, Crescent Shipping.

The trust's broader aim, defined by the general manager, Bruce Robertson, is to create "a living community," reflected in the plans for a number of buildings including the Commissioner's House and garden and Officers' Terrace. These elegant Georgian residences are being restored for leasehold sale and will combine with new houses and apartments on adjacent land to provide homes.

The dockyard is promoted as "Birthplace of Britain's Fighting Ships," with added attractions such as heavy-horse wagon rides, paddle-steamer cruises and special events adding to its appeal as a family day out. Key markets have been identified as residents within a two-hour drive, (primarily ABC families with children), senior citizens and UK and overseas visitors to the area as part of a group.

The trust works very closely with the city council of Rochester-upon-Medway, in whose area the Historic Dockyard almost entirely lies, on joint marketing initiatives, special events and funding assistance.

The city council, and Kent County Council, helped fund the enormous task of restoring the Gannet, the only remaining Victorian sloop. In one of the dry docks the Gannet, built at Sheerness in 1878, is being restored to the period of 1885, with local craftsmen supplying the masts, spars and rigging.

The next phase of museum development – an Ironclads exhibition complementing the Wooden Walls feature – is at present "on hold," pending the outcome of a request for further government funding for the dockyard project as a whole.

So far, the Historic Dockyard has not seen a significant decline in business as a result of the recession, although this is not easily explained. The trust's information officer, Sue Hudson, says: "Visitor figures are currently running against the national trend: this could be because we have a very large residential catchment area within a short distance of the Historic Dockyard, making us an economical choice for a day out.

"On the business side, we have had more enquiries in the six months to June this year than in the whole of 1990."

The dockyard is one of a number of tourist attractions in North Kent. The overlapping towns of Chatham, Rochester, Gillingham and Strood are steeped in history, much of it military: the Royal Engineers recently marked their long association with the area by opening their own museum.

Visitors are also attracted to the area by the Norman castle, Napoleonic fort, Restoration House, and above all by the "Dickens connection."

Many of Charles Dickens's haunts are in Rochester and many of the town's buildings feature in his novels, such as *Great Expectations*, *Pickwick Papers*, and *The Mystery of Edwin Drood*.

The popular Dickens Centre grew out of a campaign in the 1970s by Rochester-upon-Medway City Council to promote the area to visitors by special events.

This has been built up around a number of festivals: a Sweeps Festival in May celebrates the life of chimney sweeps centuries ago. August's river festival on the Medway features tall ships and other craft; the same month each year sees a Norman festival around the castle.

The area's relative immunity from recession is confirmed by David Homewood, economic development consultant with the city council – "we've done well over the past year: 10–15 per cent up in visitors and more in terms of visitor spending. Fort Amherst is about 15 per cent up in visitors, but 40 per cent up in income."

He attributes this resilience to two factors: the region started from a relatively low base, not being well-known as a tourist area; and most visits are on a day-trip basis.

"It is the areas dependent on longer visits which have been hardest hit, such as London which has lost American and Japanese tourists. This is a trade we didn't have, so we haven't got it to lose."

The city council wants to persuade tourists to use the area as a base from which to visit other parts of the county: it wants another 2m visitors in six years' time.

Bob Garton

CHATHAM MARITIME

Flagship development

WHEN the long-established Royal Navy dockyard in Chatham was closed in the early 1980s, site was divided into three parts.

The Medway Port Authority acquired 120 acres for a commercial port development. A number of roll-on/roll-off terminals were built fairly quickly and the cargo handled rose to 1.6m tonnes a year by 1988.

A second part of the old dockyard became the Chatham Historic Dockyard. This is a trust which is developing an 80-acre site as a heritage and tourist centre.

There are 47 listed buildings on this location and – apart from encouraging tourist products – some buildings have been rented out to commercial concerns.

The third part is Chatham Maritime and this is the largest area of the old dockyard. This consists of 340 acres (136 ha) for redevelopment. It covers two 20-acre basins of protected water which have 24-hour access to the River Medway. Most of the area is in Gillingham, but a few acres in Chatham falls within the remit of the Rochester-upon Medway city council.

Within the 340 acres some 62 acres of land have enterprise zone status. This provides a strong incentive for developers. There are plans for at least 2,000 houses, plus shopping facilities, a hospital and school premises.

Around 5,000 people could live in the area, particularly on St Mary's Island, to the north of the two basins.

The protected water areas will eventually be developed as marinas and for other leisure purposes.

Under a master plan, 105 acres have been designated for employment purposes. Chatham Maritime has targetted high technology, research and service companies to fill B1 premises (i.e. designated for light industrial/office use) which will be added to the existing complex.

The area covering Rochester, Strood, Chatham, and Gillingham has around 250,000 occupants; of these, 30,000 commute into London for work each day. It is hoped that when developed, Chatham Maritime will offer employment to at least 5,000 local people.

Chatham Maritime could therefore become a flagship development for North Kent.

The Natural Resources Institute of the Overseas Development Administration has moved administrative and research staff from London into a 300,000 sq ft facility.

This development comprised the conversion of an attractive, "listed" old barracks building with an element of new build.

Another development was the conversion of existing Quayside House adjacent to basin No 2 by Amec Properties. This high quality, 14,000 sq ft office refurbishment is now occupied by Fairclough Howard Marine.

The first speculatively built high quality office building – the Compass Centre, with 63,000 sq ft of space – is complete and mostly let to clients such as Kent County Council and Abbey National. It is located on a five-acre site on the enterprise zone.

The Colonial Mutual Assurance Group is also building a new headquarters in the area.

Chatham Maritime is the largest area of the old dockyard and consists of 340 acres for redevelopment

The building, which when completed towards the end of this year, will be around 190,000 sq ft and eventually accommodate 800 staff.

Apart from these developments, few of the planned houses, hotels shops and factories are yet built.

Part of the reason is that like other riverside developments in old industrial areas of Britain, the land needs a lot of preparation to convert it to new uses. It is often degraded or semi-derelict.

Chatham does not have a urban development corporation with government money to spend in developing the site. Instead, English Estates, the government-owned developer owns Chatham Maritime. Despite constant rumours that English Estates is to be wound up or is to realise its assets, it is pressing ahead with Chatham Maritime.

Mr Colin Bradley, one of the EE's managers says: "You must remember that when the Navy quit, they did not decommission the dockyard – they just walked away. We had to clear up the mess."

Before any redevelopment could start, English Estates had to demolish and clear 2m sq ft of obsolete buildings. Primary infrastructure had to be put in, and existing listed structures – which could not be pulled down – had to be refurbished.

The projects included the provision of a main estate road, services and a new lock providing 24-hour access from the River Medway to the enclosed basins.

This work is still going on. Mr Bradley estimates that English Estates will have spent around £20m on Chatham Maritime to established the development, which is now self-financing, is usually associated with putting up structures in developing and rundown areas where commercial developers find the return too low to build speculatively.

In Chatham's case, English Estates wants to enter into arrangements as it has done with Wilson (UK) Developments at the Compass Centre and with Amec over Quayside House.

Countryside Properties has been selected as a development partner for a substantial area of the site around Basin No 1. Schemes include the first phases of residential development on St Mary's Island together with further commercial development to the south of the basins.

The recession has slowed development down a little, as it has done elsewhere, but it also appears that some development is waiting confirmation that a significant infrastructural project will go ahead: this is the main link road between Gillingham and the Wainscott Northern by-pass around Rochester which takes in a tunnel as the third crossing of the River Medway.

Access to Chatham Maritime is poor, and goes through the main Chatham town centre. It is obvious that the link road and Medway crossing is essential – not just for Chatham Maritime – but also for the port.

The project, which is now costed at £70m, will properly link Chatham with the M25, the M2 and the M20. The scheme was to have started in 1990 and be completed by 1993.

The hope is that work will begin early next year. Once this link is seen to be progressing, Chatham will truly be on the map as a major redevelopment area.

Stewart Dalby

Big need for better transport links

Continued from page 1

but help from the European Regional Development Fund, from the European Social Fund, or from the European Coal and Steel Community Fund.

Were it a properly identified inner city area it could receive urban aid or have an urban development corporation to improve the infrastructure.

But North Kent so far has received none of this. What the government has done is establish six enterprise zones.

But, as the experience of London's Docklands has shown, declaring an enterprise zone without ensuring there are proper communications can be a mixed blessing. A number of offices are standing empty in Docklands or being offered at almost giveaway rents because of the lack of access for the thousands of staff who would need to work in them.

There has been much talk about an urban development corporation for the East Thames Corridor. This would take in not just North Kent, but also parts of Essex. Professor Peter Hall the special adviser to Mr Michael Heseltine, the environment secretary, is known to be keen on the idea.

Such a scheme would cover a large population, however, and the sums would be enormous. The other UDCS are confined to to small inner or dock areas.

Mr Heseltine: plans for a new town east of London

There are other possibilities. The government could channel money through the MoT or through local government offices.

The local authorities would not like an urban development corporation. The county council and the district councils feel they would be further marginalised if a UDC were set up. Yet without a UDC or something like it, North Kent – even with fast trains – will remain in, but not really of, the south-east.

COMMODITIES AND AGRICULTURE

Chile's president asks copper chief to stay on

By Leslie Crawford in Santiago

CHILE'S PRESIDENT Patricio Aylwin has asked Mr Alejandro Noemi, the chief executive of Codelco, the state-owned copper corporation, to stay on in his post, it emerged yesterday. The two men met at the Moneda presidential palace in Santiago in an attempt to defuse a growing crisis over the control of Codelco, the world's biggest copper producer.

A power struggle waged between Codelco's executives, led by Mr Noemi, and their political bosses at the mining ministry burst into the public arena last week with rumours that Mr Noemi had resigned.

"President Aylwin asked Mr Noemi to remain at his post. Mr Noemi did not present his resignation, neither was he asked to resign", said an official close to the conflict. "But he did ask for more autonomy and less political meddling in the running of Codelco."

The problems began with a clash of personalities. Mr Noemi and Mr Juan Hamilton, the mining minister, do not see eye to eye. They continue over the blurred zone that separates policy formation and the day-to-day administration of Chile's largest company.

Codelco executives say they are prepared to take policy directives from the mining ministry, but resent political interference in the management of the company. This is almost inevitable in a state corporation that provides a quarter of the Chilean government's income and more than one-third of the country's export earnings.

President Aylwin was also planning to see Mr Hamilton yesterday in order to broker a peace accord between the mining ministry and Codelco.

Codelco supplies about 15 per cent of world copper demand.

Zambian producer warns of difficulties ahead

ZAMBIA'S Consolidated Copper Mines (ZCCM) said it may soon face difficulties as a result of rising operating costs and a lack of investment from overseas, reports Reuter from Lusaka.

The state-owned company made a net profit of K5bn (£39m) in the financial year to the end of March, almost double its 1990 profit of K2.6bn. However, chairman and chief executive Mr Francis Kaunda said this reflected the kwacha's depreciation and, to a lesser extent, firmer prices earlier in the year.

Copper output for the year under review was 421,590 tonnes, down 26,878 tonnes on the previous year. "The shortfall was mainly attributable to shortages of inputs. In addition, 16,494 tonnes of copper were produced on toll", said Mr Kaunda.

The chairman pointed out that an estimated 90 per cent of Zambian foreign currency earnings came from copper, making it necessary to to re-invest to meet rising costs and strengthen infrastructure.

ZCCM's survival depended on foreign investment and on developing adequate infrastructure for the remaining ore reserves, Mr Kaunda said.

A technical assistance loan had been secured from the World Bank for a study to define remaining ore resources and infrastructure needs. But a ZCCM official said Bank disbursements had been held back because of Zambia's debt arrears.

ZCCM's copper production was also affected by the closure of the main Mufulira smelter last May for renovation. It is expected to be operational by December.

Russia aims to double gold mine productivity

By Leyla Boulton in Moscow

WHILE WESTERN financial officials seek to ascertain the true level of Soviet gold reserves, Russia is considering a plan to double productivity in its gold mines.

Mr Valery Rudakov, who heads the state organisation which used to run all Soviet mining and trading in gold and diamonds, said yesterday that his empire had been cut back to the territory of the Russian Federation.

Since the beginning of October, the former Glavalmazzolo has been renamed Rosalmazzoloto. Mr Rudakov said the new state monopoly was considering various plans to decentralise its operations. He also said yesterday that mines would be exploited by brigades of workers which would be more productive than under the previous system whereby workers were simply employees of state enterprises, with guaranteed social security and other benefits.

Subscribing to the official figure for Soviet reserves of 240 tonnes, which has raised eyebrows in the west, Mr Rudakov said this was less than what was extracted in a single year. But he said the only remedy was to "liquidate monopolistic structures" in the industry and subject it to a market system.

Other republics, such as Kazakhstan, are setting up their own republican organisations to take control of resources on their territory.

● Mr Grigory Yavlinsky, the Soviet economic strategist whose low estimate of the country's reserves shocked the gold market two weeks ago, said yesterday at the annual meeting of the International Monetary Fund in Bangkok that his figure of 240 tonnes included the reserves of Gosbank, the state bank, but not foreign holdings. Some western analysts had believed Mr Yavlinsky's figure did not include either Gosbank's gold or some 110 tonnes they estimated to be held abroad.

Brazil's soyabean farmers feel the squeeze

Producers face a difficult world market and high interest rates, writes Victoria Griffith

JUST two years ago, soyabeans were Brazil's star agricultural crop. The country produced a hefty 24m tonnes of the product, and soyabean-derived goods were its biggest export. Today, however, soyabeans have been hit hard by Brazil's agricultural crisis and output has tumbled to a fraction of past levels.

Brazil will produce only about 15.5m tonnes of soyabeans this year, according to recent government estimates, continuing the decline begun last year, when production fell to 20.5m tonnes.

The fall in production has caused a severe shortage of raw material among soyabean oil crushers. Some 20 companies were forced to suspend operations this month for want of adequate supply. "The industry has the capacity to use 30m tonnes of soyabeans a year", said Mr Raul Costa, president of Abiove, the Brazilian Association of Vegetable Oil Industries. "This year, we'll be lucky to get our hands on 12.6m tonnes."

Sagging international soyabean prices have exacerbated the situation. Farm credit has been tight and domestic interest rates are exorbitant. Unnerved by the high cost of production, many growers last year switched to maize, which is cheaper to grow.

This year, crop substitution is expected to continue, with preliminary reports by federal government agencies indicating a rise in sales of maize seeds and a fall in the sale of soyabean seeds. The amount of land allocated to soyabean farming has fallen some 25 per cent since 1989.

Production is expected to be around 15.5m tonnes this year, a fraction of past levels

Brazilian soyabean farmers find themselves squeezed from two sides – a difficult international market and an unfavourable domestic agricultural policy. The USSR was traditionally one of the biggest buyers of soyabeans on the world market. With little hard cash available, however, it has been forced to reduce its purchases to almost nothing. East Europe, riddled with its own financial difficulties, has also cut back.

On the international supply side, the market has been affected by Argentina's entry as a significant producer. "Argentina may soon be putting out 17m tonnes of soyabeans a year", said Mr Savio Pereiro, an agricultural analyst at the National Company of Supply, a federal agency. Domestic agricultural policy, say farmers, has been especially hard on soyabean producers. "The minimum price for soyabeans is so low that it has not helped to support prices at all", said Mr Teldo Casper, a large soyabean farmer.

Growers complain that priority is given to crops which are consumed domestically, such as kidney beans and rice. The worst problem, say farmers, is the high taxes levied by the federal government. "Soyabean producers confront a long list of taxes, from the sales tax they are forced to pay on their tractors to a sales tax levied on the beans themselves", said Mr Pereiro. "Because of the soft international market, the soyabean producer cannot pass the extra cost on to consumers. Soyabean farmers end up losing about 48 per cent of the market price of the beans to taxes."

The market also complains of credit troubles. "Last year, the government offered credit only after the farmers had already planted their crop", said Mr Costa. This year federal money is available, but farmers say they are frightened to go into debt. In an effort to put a lid on inflation, the federal government has pushed real interest rates on loans up to about 20 per cent a year. "No farmer in the world could pay that back and make a profit", said Mr Casper.

The re-location of soyabean plantations from the south to the central west of the country during the 1980s has also caused problems. Most plantations are now located far from Brazil's ports. In a country where unrepaired roads and railways make transportation notoriously unreliable, the extra distance has proved disastrous.

Even the weather has turned against farmers. An extended drought earlier this year destroyed thousands of acres of the crop and a lack of rain in September delayed planting. Producers are not optimistic about prospects for a better crop next year. "Something very unusual, like perfect weather conditions, would have to happen for us to see any improvement", said Mr Casper.

The industry recently launched a programme to try to dig itself out of the crisis. Dubbed "Pro-Soja", the new plan calls for the sector to finance itself with loans from international banks, guaranteed by the proceeds from soyabean exports. Brazil's agriculture minister, Mr Antônio Cabrera, is enthusiastic about the programme, although it is still uncertain whether international banks are willing to put up much money for the deal.

"The plan would do away with a lot of the financial uncertainty farmers face here", Mr Costa explained. "Real interest rates are far lower abroad, and as international soyabean prices are quoted in dollars, growers prefer to borrow in dollars." But he warned that if the plan is to make any difference this year, it will have to be put into effect quickly.

"We must get the money over the next few weeks", he said. "By November, the planting will be over and it will be too late."

Oil prices reach highest level since Gulf war

By Deborah Hargreaves

OIL prices reached their highest level since the Gulf war yesterday when North Sea Brent crude oil for November delivery rose 30 cents to $22.50 a barrel. Market fears remain focused on the tight supply situation for the next few months and the possibility of disruption in Soviet exports.

US prices are also high, with the New York Mercantile Exchange's November futures contract at $23.46 a barrel in early trading yesterday, but showing little movement. The New York market is being driven by European anxiety.

"The market is obsessed with the availability, or lack of it, of Russian material", said Mr Andy LeBow, trader at ED & F Mann in New York.

Demand for oil from the Organisation of Petroleum Exporting Countries could be as high as 24m barrels a day (b/d) in November and December. Current Opec output is estimated at between 23.6m b/d and 23.72m b/d, but most analysts had reckoned on some deliveries from Iraq, which now seems increasingly unlikely.

Trading houses are also building stocks of heating oil and gas oil – the main Soviet export – in expectation of cold winter weather.

"I'm appalled at the strength in the market given the size of the inventories . . . I think prices will peak sometime in the next month and could be weaker towards the end of the year", said Mr LeBow.

● The North Sea Brent oil pipeline is expected to deliver 670,000 b/d of crude oil to the Sullom Voe terminal in the Shetland Isles in November, pipeline operator Shell Expro said, reports Reuters.

Brent system oil throughput in October has been estimated at 605,000 b/d, the company said.

Scottish salmon farmers seek action on Norwegian 'dumping'

By James Buxton, Scottish Correspondent

SCOTTISH salmon farmers, who say their financial position is "critical", have appealed to Mr John Major, the UK prime minister, for help in obtaining action by the EC Commission against Norway, which the farmers say is dumping on the European market.

The Scottish Salmon Growers Association wants Mr Major to persuade Britain's Department of Trade and Industry to make a strong approach to the Commission asking it for immediate action against Norway. The SSGA describes the DTI's attitude as "unhelpful and rigid."

Wholesale salmon prices have been low for most of this year and several Scottish farms have called in the receivers. In July, 58 of the 178 farms which had been operating at the beginning of 1989 were no longer trading under their original name; some had disappeared altogether.

Mr William Crowe, the SSGA's chief executive, says farm gate prices of about £1.20 a lb are 20p to 25p below production cost. He claims Norwegian dumping has cost Scottish farmers £25m so far this year.

Although Norway introduced a price support scheme in 1990, backed by the buying-in and freezing of 50,000 tonnes of salmon, Mr Crowe says the SSGA has "conclusive proof that frozen Norwegian salmon is being openly touted around world markets at knock-down prices."

Earlier this year Britain and Ireland failed to persuade the Commission to impose an 11.4 per cent import duty on salmon from Norway, Europe's largest producer of farmed salmon. Countries such as France which consume Norwegian salmon were opposed to anti-dumping duties, while Norway promised to take action to stabilise the price.

However, Mr Crowe believes the Commission would be willing to act against Norway and could use a safeguard clause in EC regulations enabling immediate action, such as imposing a quota on Norwegian salmon exports or levying a duty, rather than go through another lengthy anti-dumping investigation. The SSGA believes that the stumbling block is the reluctance of the DTI to press the matter.

Mr Crowe has written to Mr Major warning of the economic consequences for the Highlands and Islands and the political consequences for the government if the industry is allowed to die through "government inaction or indifference".

MINOR METALS PRICES

Prices from Metal Bulletin (last week's in brackets).

ANTIMONY: European free market 99.6 per cent, $ per tonne, in warehouse, 1,640-1,670 (same).

BISMUTH: European free market, min. 99.99 per cent, $ per lb, tonne lots in warehouse, 2.80-3.20 (same).

CADMIUM: European free market, min. 99.5 per cent, $ per lb, in warehouse, 1.90-2.45 (2.00-2.50).

COBALT: European free market, 99.5 per cent, $ per lb, in warehouse, 17.50-18.50 (18.50-19.10).

MERCURY: European free market, min. 99.99 per cent, $ per 76 lb flask, in warehouse, 70-90 (same).

MOLYBDENUM: European free market, drummed molybdic oxide, $ per lb Mo, in warehouse, 2.23-2.28 (same).

SELENIUM: European free market, min 99.5 per cent, $ per lb, in warehouse, 4.80-5.40.

TUNGSTEN ORE: European free market, standard min. 65 per cent, $ per tonne unit (10 kg) WO_3, cif, 59-67 (same).

VANADIUM: European free market, min. 98 per cent, $ a lb V_2O_5, cif, 2.35-2.45 (2.20-2.35).

URANIUM: Nuexco exchange /value, $ per lb, U_3O_8, 8.75 (same).

LME WAREHOUSE STOCKS
(As at Monday's close)
tonnes

Aluminium	+7,750	to 736,075
Copper	−250	to 300,675
Lead	+725	to 105,325
Nickel	−210	to 8,394
Zinc	−850	to 149,000
Tin	−205	to 13,210

WORLD COMMODITIES PRICES

MARKET REPORT

COPPER prices rallied in late trading at the London Metal Exchange after extending the recent decline on what traders described as a 'lunchtime bear raid'. This triggered liquidation sales and stop-loss selling orders. Solid support appeared, however, in unofficial closing ring, which ended with the three months price at £1,360.50 a tonne, up £10 on the day. And in afterhours, or kerb, trading the price gained another £1.50. Copper's late strength also helped the zinc market to recover some of its earlier losses and kerb trading ended with the three months price $4.50 above the unofficial close, at which point it had been $15 down on the day at a fresh life-of-contract low of $989.50 a tonne. Trade buying had been attracted at that level, dealers said. But they noted that the ensuing rally was not strong enough to trigger the technical buying and short-covering that they considered overdue in view of the oversold condition of the market. At the London Futures and Options Exchange US technical selling led a sharp fall in cocoa values and the March position finished £17 down at £795 a tonne. Unchanged German grind figures were disappointing, one trader said, "Otherwise, the fall was solely due to fund liquidation in New York."

Compiled from Reuters

London Markets

SPOT MARKETS

Crude oil (per barrel FOB)		+ or -
Dubai	$18.65-8.70z	-0.20
Brent Blend (dated)	$22.65-2.75	+0.15
Brent Blend (Nov)	$22.15-2.20	+.175
W.T.I. (1 pm est)	$23.30-3.35z	+0.15
Oil products		
(NWE prompt delivery per tonne CIF)		+ or -
Premium Gasoline	$233-235	+2
Gas Oil	$225-228	+1
Heavy Fuel Oil	$82-84	+1.5
Naphtha	$220-224	
Petroleum Argus Estimates		
Other		+ or -
Gold (per troy oz)♣	$358.15	-0.90
Silver (per troy oz)♣	408.0c	-1.5
Platinum (per troy oz)	$368.90	-3.45
Palladium (per troy oz)	$85.4	-2.0
Copper (US Producer)	110.48c	-1.02
Lead (US Producer)	37.42c	-0.58
Tin (Kuala Lumpur market)	14.81r	-0.03
Tin (New York)	2587.0c	+1.0
Zinc (US Prime Western)	62.0c	
Cattle (live weight)†	102.47	-0.23*
Sheep (dead weight)†	108.52p	-1.49*
Pigs (live weight)†	71.94p	-1.29*
London daily sugar (raw)	$232.4j	+2.9
London daily sugar (white)	$265.5j	+2.5
Tate and Lyle export price	£244.5	+2.5
Barley (English feed)	Unq.	
Maize (US No. 3 yellow)	£140.5	
Wheat (US Dark Northern)	£101	
Rubber (Nov)♥	54.50p	
Rubber (Dec)♥	54.00p	
Rubber (KL RSS No 1 Nov)	230.5m	+1.0
Coconut oil (Philippines)§	$565y	+15
Palm Oil (Malaysian)§	$340.0q	
Copra (Philippines)§	$375j	+20
Soyabeans (US)	£161	+1
Cotton "A" Index	67.90c	-0.55
Wooltops (64s Super)	335p	

£ a tonne unless otherwise stated. p-pence/kg. c-cents/lb. r-ringgit/kg. q-Nov/Jan t-Sep/Dec u-Oct x-Sep/Oct y-Nov/Dec z-Dec j-Oct/Nov. †Meat Commission average fatstock prices. * change from a week ago. ♥London physical market. §CIF Rotterdam. ♣ Bullion market close. m-Malaysian cents/kg.

SUGAR – London FOX ($ per tonne)

Raw	Close	Previous	High/Low
Mar	189.00	187.60	190.00 186.20
May	188.00	186.60	188.00
Aug	193.00	191.60	190.20 190.00
White	**Close**	**Previous**	**High/Low**
Dec	280.5	279.9	281.3 279.0
Mar	278.5	278.5	279.0 277.5
May	278.0	277.9	277.5 276.4
Aug	278.5	278.0	277.8 276.5
Oct	258.5	258.0	258.0 256.8
Dec	256.5	257.0	255.9

Turnover: Raw 152 (197) lots of 50 tonnes. White 1761 (578)
Paris- White (FFr per tonne): Dec 1636, Mar 1638

CRUDE OIL – IPE $/barrel

	Close	Previous	High/Low
Nov	22.81	22.42	22.74 22.30
Dec	22.37	22.07	22.33 21.96
Jan	22.02	21.73	22.02 21.65
Feb	21.67	21.44	21.58 21.45
Mar	21.23		21.25
Apr	20.97	20.78	20.92 20.90
Jul	20.40		20.28
IPE Index	22.33	21.86	

Turnover 41594 (21724)

GAS OIL – IPE $/tonne

	Close	Previous	High/Low
Nov	221.75	220.00	222.50 219.00
Dec	221.25	219.50	222.25 218.75
Jan	217.50	219.50	218.75 215.50
Feb	208.75	209.25	211.00 209.00
Mar	201.50	201.00	203.00 201.00
Apr	193.50	193.00	195.00 193.50
May	188.75	187.00	188.00 187.00
Jun	181.50		181.50

Turnover 16941 (13370) lots of 100 tonnes

COTTON
Liverpool- Spot and shipment sales for the week ending 11 October amounted to 29 tonnes against 212 tonnes in the pervious week. Fair trading developed mostly in Californian and West African qualities.

JUTE
October/November: c and f Dundee: BTC $405, BWC $415, BTD $370, BWD $360; c and f Antwerp: BTC $380, BWC $375, BTD $355, BWD $350.

COCOA – London FOX £/tonne

	Close	Previous	High/Low
Dec	755	773	767 748
Mar	795	812	805 788
May	817	833	827 810
Jul	840	857	849 834
Sep	862	880	870 867
Dec	887	903	895 883
Mar	912	927	910
May	932		939 930

Turnover: 12201 (2391) lots of 10 tonnes
ICCO indicator prices (SDRs per tonne). Daily price for Oct. 14 961.90 (987.74) 10 day average for Oct. 15 975.38 (974.16)

COFFEE – London FOX £/tonne

	Close	Previous	High/Low
Nov	516	525	531 514
Jan	538	560	554 537
Mar	555	556	571 556

Turnover:2851 (2610) lots of 5 tonnes
ICO indicator prices (US cents per pound) for Oct. 15: Comp. daily 62.93 (62.59) 15 day average 62.84 (63.05)

POTATOES – London FOX £/tonne

	Close	Previous	High/Low
Apr	128.8	129.4	130.5 129.0

Turnover 95 (122) lots of 20 tonnes.

SOYAMEAL – London FOX £/tonne

	Close	Previous	High/Low
Dec	133.00	132.00	133.00
Feb	137.00	136.50	137.00

Turnover 12 (162) lots of 20 tonnes.

FREIGHT – London FOX $10/index point

	Close	Previous	High/Low
Oct	1679		1679 1663
Dec	1722		1720 1720
Jan	1739	1744	1740 1738
Apr	1740	1494	1740
Jan	1650		1650
BFI	1612	1605	

Turnover 187 (20)

GRAINS – London FOX £/tonne

Wheat	Close	Previous	High/Low
Nov	119.05	118.65	119.10 118.60
Jan	122.40	122.35	122.60 122.20
Mar	125.35	125.30	125.50 125.00
May	128.00	128.15	128.30 128.00
Barley	**Close**	**Previous**	**High/Low**
Nov	114.05	114.10	114.20 114.00
Jan	117.90	118.05	118.10 117.90
Mar	120.60		120.60 120.50

Turnover: Wheat 415 (169), Barley 308 (20).
Turnover lots of 100 tonnes.

PIGS – London FOX (Cash Settlement) p/kg

	Close	Previous	High/Low
Oct	95.0	95.8	94.0
Nov	94.0	96.0	93.0
Feb	97.0	98.5	96.0

Turnover:28 (13) lots of 3,250 kg

MGMI – London FOX

	Close	Prev.	High	Low	Vol
Indx	131.36	132.68			
Nov	132.20	132.50	132.20		28
Dec	132.20	133.50	132.40	132.20	60
Jan	132.30		132.30		70

LONDON METAL EXCHANGE (Prices supplied by Amalgamated Metal Trading)

	Close	Previous	High/Low	AM Official	Kerb close	Open interest
Aluminium, 99.7% purity ($ per tonne)						Total daily turnover 30,416 lots
Cash	1113.5-4.5	1115-7		1110-1		
3 months	1142.5-3.0	1144-6	1150/1139	1138.5-40	1147-8	54,142 lots
Copper, Grade A (£ per tonne)						Total daily turnover 25,159 lots
Cash	1371-2	1358-9	1375/1366	1365-6		
3 months	1360-1	1350-1	1361/1352	1357-8	1361-2	42,455 lots
Lead (£ per tonne)						Total daily turnover 3,063 lots
Cash	302-3	298-9	299.5	299.5-300		
3 months	314-4.5	310-6-0.75	316/309	311-1.5	316-6.5	4,020 lots
Nickel ($ per tonne)						Total daily turnover 2,651 lots
Cash	7420-30	7470-80	7425	7420-5		
3 months	7495-500	7530-5	7525/7500	7500-5	7500-10	3,523 lots
Tin ($ per tonne)						Total daily turnover 1,589 lots
Cash	5550-60	5515-20	5525	5525-30		
3 months	5625-30	5595-600	5635/5590	5600-5	5617-22	958 lots
Zinc, Special High Grade ($ per tonne)						Total daily turnover 1,114 lots
Cash	969.5-8.5	983-4	972.5	972-3		
3 months	989-90	1004-5	995/986	992-2.5	993-4	11,137 lots

LME Closing £/$ rate:
SPOT: 1.7020 | 3 months: 1.6815 | 6 months: 1.6635 | 9 months: 1.6464

LONDON BULLION MARKET
(Prices supplied by N.M.Rothschild)

Gold (fine oz)	$ price	£ equivalent
Close	357.90-358.40	
Opening	357.70-358.10	
Morning fix	358.60	209.867
Afternoon fix	357.55	209.805
Day's high	359.40-359.80	
Day's low	357.90-358.40	

Loco Ldn Mean Gold Lending Rates (Vs US$)

1 month	4.80	6 months	4.65
2 months	4.76	12 months	4.59
3 months	4.71		

Silver fix	p/fine oz	US cts equiv
Spot	238.55	407.65
3 months	244.80	412.85
6 months	250.70	418.45
12 months	262.45	429.75

GOLD COINS
(Prices supplied by Engelhard Metals)

	$ price	£ equivalent
Krugerrand	357.50-358.50	209.75-210.25
Maple leaf	368.50-369.50	216.25-216.75
New Sovereign	87.25-88.25	51.25-51.75

TRADED OPTIONS

Coffee	Nov	Jan	Nov	Jan
450	66	88		
500	16	48		9
550		18	34	31
Cocoa	**Dec**	**Mar**	**Dec**	**Mar**
725	46	94	17	24
750	31	78	27	33
775	21	63	42	43
Brent Crude	**Dec**	**Jan**	**Dec**	**Jan**
2200	60	58	43	75
2250	36	41		45
2300	21	28	43	

New York

GOLD 100 troy oz.; $/troy oz.

	Close	Previous	High/Low	
Oct	357.7	368.9	0	0
Nov	358.5	359.7	359.5	359.5
Dec	360.1	361.3	361.5	359.7
Feb	362.8	364.0	364.2	362.4
Apr	365.4	366.7	368.0	365.8
Jun	3368.0	3369.3	0	0
Aug	370.8	372.2	372.1	372.1
Oct	373.5	374.9	0	0
Dec	376.4	377.9	377.9	377.9

PLATINUM 50 troy oz; $/troy oz.

	Close	Previous	High/Low	
Oct	368.8	371.7	369.0	367.0
Jan	369.3	374.2	373.0	368.0
Apr	372.6	377.8	375.8	373.0
Jul	376.2	381.4	0	0
Oct	383.0	388.2	0	0

SILVER 5,000 troy oz; cents/troy oz.

	Close	Previous	High/Low	
Oct	405.1	406.6	0	0
Nov	406.3	407.8	0	0
Dec	408.2	409.7	411.0	407.5
Jan	410.1	411.7	0	0
Mar	414.6	416.2	417.0	414.0
May	418.8	420.6	419.0	419.0
Jul	422.9	424.6	424.0	424.0
Sep	427.2	428.9	0	0
Dec	433.7	435.4	436.0	434.0
Jan	436.2	437.9	0	0

HIGH GRADE COPPER 25,000 lbs; cents/lbs

	Close	Previous	High/Low	
Oct	105.60	105.90	105.85	104.60
Nov	105.00	105.10	105.15	104.30
Dec	104.10	104.20	104.50	102.80
Jan	103.05	103.15	103.00	102.60
Feb	102.40	102.50	102.30	102.30
Mar	101.80	101.90	101.90	101.05
Apr	101.35	101.45	0	0
May	100.90	100.90	100.95	100.20
Jun	100.45	100.55	0	0
Jul	100.05	100.15	0	0

SUGAR WORLD "11" 112,000 lbs; cents/lbs

	Close	Previous	High/Low	
Mar	8.66	8.67	8.70	8.63
May	8.59	8.50	8.62	8.60
Jul	8.55	8.48	8.55	8.48
Oct	8.52	8.45	8.54	8.51
Mar	8.50	8.35	0	0

CRUDE OIL (Light) 42,000 US galls $/barrel

	Close	Previous	High/Low	
Nov	23.86	23.46	23.89	23.38
Dec	23.56	23.25	23.69	23.16
Jan	23.27	23.01	23.30	22.91
Feb	22.97	22.75	22.98	22.68
Mar	22.67	22.48	22.63	22.41
Apr	22.37	22.21	22.34	22.15
May	22.13	21.98	22.05	21.98
Jun	21.94	21.82	21.84	21.82
Jul	21.78	21.67	21.72	21.62
Aug	21.64	21.54	21.59	21.60

HEATING OIL 42,000 US galls, cents/US galls

	Close	Previous	High/Low	
Nov	6917	6908	6950	6830
Dec	7026	6994	7040	6920
Jan	7020	6998	7040	6940
Feb	6957	6900	6960	6760
Mar	6527	6470	6525	6450
Apr	6237	6180	6190	6160
May	6052	5995	6020	5960
Jun	5927	5875	5960	5650
Jul	5882	5820	5830	5800
Aug	5932	5870	5870	5850

COCOA 10 tonnes;$/tonnes

	Close	Previous	High/Low	
Dec	1181	1219	1206	1175
Mar	1242	1280	1268	1235
May	1276	1310	1297	1270
Jul	1302	1337	1315	1311
Sep	1329	1364	1335	1332
Dec	1363	1400	0	0
Mar	1397	1433	0	0
May	1422	1458	0	0
Jul	1447	1483	0	0

COFFEE "C" 37,500lbs; cents/lbs

	Close	Previous	High/Low	
Dec	79.80	81.55	81.40	79.60
Mar	83.75	85.55	85.26	83.60
May	86.10	88.10	87.50	86.10
Jul	88.65	90.75	89.00	88.65
Sep	91.60	93.15	91.60	91.50
Dec	95.50	97.00	95.50	95.50
Mar	99.00	99.50	0	0

COTTON 50,000; cents/lbs

	Close	Previous	High/Low	
Dec	63.65	63.49	63.75	63.28
Mar	65.59	65.55	65.65	65.25
May	66.30	66.37	66.45	66.10
Jul	66.95	67.07	67.10	66.80
Oct	65.80	65.82	65.85	65.75
Dec	65.80	65.67	65.90	65.70
Mar	66.90	66.75	0	0

ORANGE JUICE 15,000 lbs; cents/lbs

	Close	Previous	High/Low	
Nov	162.00	157.85	166.20	158.25
Jan	141.50	136.60	141.60	141.60
Mar	142.70	137.70	142.70	142.70
May	142.95	137.95	0	0
Jul	142.95	137.95	0	0
Sep	142.95	137.95	0	0
Nov	142.95	137.95	0	0
Jan	142.95	137.95	0	0
Mar	142.95	137.95	0	0

INDICES

REUTERS (Base: September 18 1931 = 100)

Oct 15	Oct 14	mnth ago	yr ago
1624.4	1620.6	1637.9	1721.5

DOW JONES (Base: Dec. 31 1974 = 100)

	Oct 14	Oct 11	mnth ago	yr ago
Spot	114.01	114.18	117.81	126.23
Futures	122.82	123.31	122.98	127.62

Chicago

SOYABEANS 5,000 bu min; cents/60lb bushel

	Close	Previous	High/Low	
Nov	548/0	548/0	548/4	545/2
Jan	559/0	559/0	560/0	556/4
Mar	570/6	570/0	571/4	568/2
May	580/4	580/2	581/0	578/0
Jul	588/4	588/0	589/4	585/6
Aug	590/6	589/4	591/4	588/0
Sep	583/0	581/2	586/0	582/4
Nov	588/6	586/0	592/0	584/0

SOYABEAN OIL 60,000 lbs; cents/lb

	Close	Previous	High/Low	
Oct	19.49	19.32	19.50	19.28
Dec	19.76	19.56	19.78	19.56
Jan	19.93	19.75	19.94	19.72
Mar	20.25	20.09	20.26	20.05
May	20.58	20.35	20.58	20.38
Jul	20.82	20.65	20.87	20.75
Aug	20.95	20.77	20.95	20.90
Sep	21.05	20.97	21.10	21.05

SOYABEAN MEAL 100 tons; $/ton

	Close	Previous	High/Low	
Oct	179.8	180.3	180.3	178.9
Dec	177.2	178.1	178.0	176.9
Jan	176.7	177.3	177.2	176.2
Mar	175.4	176.2	176.2	175.2
May	174.3	174.8	174.8	173.9
Jul	174.5	174.1	174.7	174.0
Aug	174.7	173.8	174.8	174.0
Sep	174.6	173.5	174.7	173.8

MAIZE 5,000 bu min; cents/56lb bushel

	Close	Previous	High/Low	
Dec	248/2	248/2	249/0	248/0
Mar	255/6	257/4	257/4	255/4
May	262/2	263/4	264/2	262/0
Jul	267/0	268/2	268/4	266/6
Sep	260/2	260/0	261/2	259/6
Dec	258/0	256/6	258/2	256/2
Mar	265/2	264/0	0	0

WHEAT 5,000 bu min; cents/60lb-bushel

	Close	Previous	High/Low	
Dec	346/2	343/6	347/0	341/6
Mar	348/2	346/6	348/6	344/6
May	341/2	338/4	341/4	338/0
Jul	327/2	325/2	327/6	324/0
Sep	331/4	331/0	331/4	331/0
Dec	342/4	341/6	342/4	340/0

LIVE CATTLE 40,000 lbs; cents/lbs

	Close	Previous	High/Low	
Oct	73.20	73.17	73.25	72.85
Dec	76.02	76.65	76.45	75.90
Feb	75.22	75.65	75.57	75.15
Apr	75.40	75.87	75.90	75.35
Jun	72.30	72.72	72.75	72.30
Aug	70.40	70.82	70.70	70.40
Oct	70.65	71.10	71.20	70.65

LIVE HOGS 30,000 lb; cents/lbs

	Close	Previous	High/Low	
Oct	44.37	44.70	44.80	44.30
Dec	43.67	43.65	43.72	43.35
Feb	43.17	43.15	43.30	42.80
Apr	41.60	41.45	41.65	41.35
Jun	46.22	46.45	46.60	46.20
Jul	46.32	46.55	46.50	46.25
Aug	44.87	45.00	45.00	44.77
Oct	41.35	41.40	41.50	41.35

PORK BELLIES 40,000 lbs; cents/lb

	Close	Previous	High/Low	
Feb	43.80	43.35	44.05	42.77
Mar	43.45	43.05	43.70	42.55
May	44.37	43.77	44.80	43.15
Jul	44.70	43.95	44.70	43.56
Aug	42.05	42.10	42.40	42.05

LONDON STOCK EXCHANGE

Early gains lost in a nervous market

By Terry Byland, UK Stock Market Editor

LONDON attempted to follow Wall Street's overnight advance but early gains foundered on news of a sharp fall in UK industrial production last month and, later, on widespread speculation that an impending public opinion poll would disclose a poor showing by the Conservative government.

Oil shares performed strongly throughout the session, responding to the strength of the sector in New York and also to positive views on the outlook for crude oil prices. Early trading saw the FT-SE Index gain 13.5 as the UK market applauded the return of the Dow Industrial Average to the 3,000-plus area overnight.

Investment support was limited, however, and economic concerns were reawakened by the announcement of a 1.5 per cent fall in industrial production in August, significantly greater than expected in the City. Also disclosed yesterday was an annualised rise of 5.6 per cent in producer output prices in September, a figure much in line with analysts' forecasts.

Account Dealing Dates		
*First Dealings:		
Sep 30	Oct 14	Oct 28
Option Declarations:		
Oct 10	Oct 24	Nov 7
Last Dealings:		
Oct 11	Oct 25	Nov 8
Account Day:		
Oct 21	Nov 4	Nov 18

*New-time dealings may take place from 8.30 am two business days earlier.

The unexpectedly large fall in industrial production was "a reminder that economic recovery may be slow and difficult", commented Mr Ian Harnett of Strauss Turnbull, London arm of Société Générale. The continuing strength of producer prices, on the other hand, appeared to confirm that core inflation remains stubbornly higher than recent falls in the headline inflation numbers would indicate.

Share prices quickly gave back their early gains and, for the rest of the session, the market had to struggle to remain in plus territory – indeed, the final picture owed much to the strong performance from the oil sector, where rises in BP, Shell, Lasmo and Enterprise buttressed the FT-SE 100 Share Index.

The FT-SE Index closed 2.2 up at 2,576.7, making little response in the final minutes to an early gain of seven Dow points in the new Wall Street session.

Beneath this apparently unexciting market trend, equity business was relatively high. In addition to a placing of 20m shares in Ratners, the jewellery group, the market was enlivened by at least three trading programmes, two of significant size and extending across the range of the market. The day's Seaq volume jumped to 534.3m shares, against 433m on Monday, equalling the best of the daily totals recorded so far this month.

Equity strategists expressed disappointment at London's inability to benefit from Wall Street's rally. The fall in the Dow last week had a recognisably bearish influence on London, and the UK market is clearly waiting to see if Wall Street can hold above Dow 3,000, a feat it has failed to manage on previous occasions over the past four months.

The sudden rush of opinion poll speculation lacked any foundation during market hours, but confirmed the sensitivity to political factors which has surfaced since the government decided against holding an early general election. The debate over prospects for a cut in UK base rates continued, with the pound a shade easier against the dollar and London money markets firm.

With the exception of the oil stocks, blue chip issues were mostly lower. British Telecom gave ground as the market braced itself for the sale next month of a further tranche of the British government's stake.

FINANCIAL TIMES STOCK INDICES

	Oct 15	Oct 14	Oct 11	Oct 10	Oct 9	Year Ago	1991 High	1991 Low	Since Compilation High	Since Compilation Low
Government Secs	86.72	86.70	86.70	86.58	86.76	79.76	87.94 (18/9)	82.17 (2/1)	127.4 (9/1/35)	49.18 (3/1/75)
Fixed Interest	96.47	96.48	96.47	96.55	96.63	88.90	97.17 (2/10)	90.59 (2/1)	105.4 (28/11/47)	50.53 (3/1/75)
Ordinary Share●	1973.5	1973.6	1953.9	1958.4	1975.7	1600.8	2108.3 (2/9)	1806.3 (16/1)	2108.3 (2/9/91)	49.4 (26/6/40)
Gold Mines	168.5	167.5	166.6	167.1	167.3	163.9	222.8 (11/7)	127.0 (22/2)	734.7 (15/2/83)	43.5 (26/10/71)
FT-SE 100 Share	2576.7	2574.5	2555.0	2570.8	2584.1	2068.0	2679.6 (2/9)	2054.8 (16/1)	2679.6 (2/9/91)	986.9 (23/7/84)
FT-SE Eurotrack 200	1158.72	1153.67	1149.55	1150.98	1154.67	-	1198.60 (3/9)	938.62 (16/1)	1198.60 (3/9/91)	938.62 (16/1/91)
●Ord. Div. Yield	4.73	4.72	4.75	4.74	4.70	5.99				
●Earning Yld %(full)	7.45	7.45	7.57	7.55	7.49	12.50				
●P/E Ratio(Net)(☆)	16.76	16.78	16.49	16.53	16.65	9.70				
SEAQ Bargns 4.45pm	24,831	25,714	32,806	30,011	28,767	18,005				
Equity Turnover(£m)†	-	597.22	369.00	1001.31	906.44	724.37				
Equity Bargains†	-	24,471	32,307	28,796	27,609	17,338				
Shares Traded (ml)†	-	472.6	654.0	435.5	391.0	364.8				

Basis 100 Govt. Secs 15/10/26, Fixed Int. 1928, Ordinary 1/7/35, Gold mines 12/9/55. Basis 1000 FT-SE 100 31/12/83 & FT-SE Eurotrack 200 26/10/90. ☆ Nil 15.91

Ordinary Share Index, Hourly changes — Day's High 1984.8 — Day's Low 1970.0

Open	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm
1984.8	1977.7	1978.4	1973.7	1975.9	1975.4	1975.2	1973.5	1971.5

FT-SE 100, Hourly changes — Day's High 2588.0 — Day's Low 2572.8

Open	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm
2587.0	2582.1	2583.3	2575.8	2577.3	2576.9	2577.5	2576.2	2574.6

FT-SE Eurotrack 200, Hourly changes — Day's High 1159.25 — Day's Low 1155.85

Open	11 am	12 pm	1 pm	2 pm	3 pm	4 pm
1158.30	1157.76	1158.60	1155.98	1157.98	1157.61	1157.39

GILT EDGED ACTIVITY

Indices*	Oct 14	Oct 11
Gilt Edged Bargains	76.2	93.9
5–Day average	92.3	92.1

*SE Activity 1974.
†Excluding intra-market business & Overseas turnover.

London report and latest Share index: Tel. 0898 123001

Nervous selling hits BT

INCREASING concern over the forthcoming sale of part of the government's remaining near-48 per cent stake in BT, formerly British Telecommunications, saw the shares dip below 400p for the first time since the preliminary sales details were announced at the start of the month.

At the close of trading BT shares were 7½ lower at 399p on turnover expanded from recent daily levels to 9.9m.

Dealers said the shares had been hit by a number of bearish factors, the most influential being the hint of the first sell note on BT from County NatWest, one of the most important London securities houses not involved in the government share sale. Mr Patrick Wellington at County will publish a bearish note on BT this morning, citing four main areas of concern.

First, he will draw attention to the increased regulatory risks in the wake of the aggressive stance adopted by the Office of Fair Trading towards British Gas; second, he will stress the political risk; third the threat of increased competition in UK telecommunications; and fourth, County's own shift of emphasis in the UK equity market from defensive areas to cyclical stocks.

Steel weak again

British Steel fell on speculation that the company, which is due to report interim results next month, would cut or even pass its annual dividend.

At its lowest level for the day the shares were down 3½. BZW and S.G. Warburg were reported to be among the day's main sellers. US selling was also noted on speculation that talks between British Steel and Bethlehem Steel, of the US, on a joint venture had run into difficulties.

Bargain hunters late in the session, however, helped the shares recover from the day's low to end 1½ down at 117p. Turnover reached 12m shares.

Oil issues active

Oil shares were driven sharply higher by a combination of heavy overnight American buying, firm crude oil prices, big switching out of utilities into oils, and a distinct shortage of stock. The twin impetus of keen buying of "big oil" in the US overnight and another determined advance by crude oil prices, which left Brent prices firmly on the road to $23 a barrel, triggered the initial run.

Marketmakers hoisted opening prices and then encountered follow-through buying from international institutions. British Gas's tribulations at the hands of the Office of Fair Trading and Ofgas prompted switching out of Gas and into Shell and/or BP. The emphasis was on Shell, which advanced 12 to 528p on 4.7m. BP added 5 at 347p on 6.3m, but Gas shares resumed their retreat to settle 5 lower at 257p on 7m.

The two most important exploration and production stocks, Enterprise and Lasmo, advanced as attempted buying uncovered widespread stock shortages. The latter finished 15 ahead at 315p on above average turnover of 2.2m, while Enterprise jumped 18 to 523p on 1.2m. Burmah-Castrol, up 13 at 594p, was another example of a market short of stock.

Ultramar slipped 6 to 259p in heavy turnover of 8.4m shares, with a line of 3.4m said to be on offer at 261p. Another was a story emanating from an analysts' trip to California suggesting the need for capital expenditure of more than $500m over the next five years.

Ratners placing

Volume in Ratners climbed to 39m as Barclays de Zoete Wedd placed 20m of the shares at 76p. Activity on the Seaq ticker suggested the broker had bought the stock at 75p.

The shares declined 5 to 79p, their lowest level for more than five years. Sentiment was not helped by the prospect of the likely second consecutive failure of the 28-day rolling auction for one of four tranches of the company's variable term preferred shares (prefs). The failure of any such auction, held every Tuesday evening, raises the dividend payable on the prefs by about $2m a year.

Trading in the shares of television contractors continued apace ahead of the expected announcement of winners and losers this morning. Gains were patchier than on Monday, with outstanding performances from Scottish TV, 25 better at 630p, and Ulster TV, 10 to the good at 145p.

Carlton Communications, which has run up 30p in the last few days on the assumption that it would win the London weekday franchise from Thames, slipped 6 to 520p. At least one broker recommended selling into strength. Thames recovered 3 to 196p.

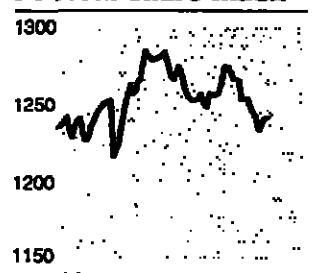
After the market closed, the Stock Exchange said Seaq price quotations would be indicative – that is, marketmakers are not obliged to trade at screen prices – from 8.30am until 30 minutes after the announcements. The move is in anticipation of hectic trading in the 30 stocks involved in the franchise changes.

Video distributor Cityvision fell 7½ to 26½p after it warned that first-half profits were "unlikely to match the £3.5m achieved in the first half".

SmithKline Beecham "A", one of the less volatile stocks in the pharmaceuticals sector, climbed 14 to 761p as investors switched out of SmithKline Beecham equity units. For tax reasons, the "A" shares are largely traded in the UK and the equity units in the US. Over the last five days, the "A" have weakened 3 per cent against the equity units, to their lowest relative level since May. Yesterday's rise reduced this gap.

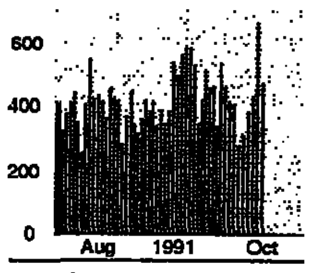
The SFr1bn (£394m) rights issue from Swiss drugs giant Roche came after trading in London had finished. Nevertheless, it prompted some analysts to speculate that the company might be preparing a bid in the sector.

FT-A All-Share Index



Equity Shares Traded

Turnover by volume (million)
Excluding: Intra-market business & Overseas turnover



Reuters climbed 9 to 955p as traders talked of a possible buy recommendation from a US broker.

Traders spoke of a "small panic" in the electricity and water issues after the Office of Fair Trading moves against British Gas. Persistent small selling of the electricity shares ahead of Thursday's final date for payment of the second 70p instalment on the shares was augmented by flurries of institutional selling of all the utilities, with the Electricity Package finally 60 down at £2683.

Northumbrian Water attracted its heaviest turnover for some time. A line of 1.4m shares was sold in the market at 370p and placed at 373p, with both trades at a significant discount to the market. The stock closed 3 off at 381p.

Reports that British Airways was in talks with Northwest Airlines, of the US, about a strategic alliance, along with recent profits upgrades, helped the shares firm another 6 to 202p on impressive turnover of 7.8m. BAA remained a dull market after the recent profits downratings. The shares closed 3 easier at 439p.

Buy recommendations from County NatWest helped Argos and Fine Art Developments. Ms Joan d'Olier, of County, said Argos was the highest quality stock in the retail sector. Argos firmed 4 to 304p and Fine Art improved 7 to 367p.

Waste management company Shanks & McEwan lost 4 to 208p. County NatWest yesterday argued that the waste management sector would generally outperform the FT-A All-Share Index but that Shanks would be weak for some time.

Profit-taking pushed back AIM Group by 18 to 168p. USM-quoted Sherwood Group jumped 28 to 718p. Sherwood announced a 28 per cent profits boost at the start of the month and County NatWest has put the lace and garment company on its buy list.

Specialty chemicals company Laporte receded 13 to 583p. One observer said: "The shares have had a very good run and are now among the most expensive in the sector. They look overvalued above 550p."

Hillsdown continued to be dogged by uncertainty about the success of its rights issue. The shares closed 1½ better at 209½p, below the rights price of 210p as the deadline approached for shareholders to decide whether they would take up their rights.

A profits downgrading weakened Rolls-Royce, which ended 5 off at 137p. James Capel shaved its current year's forecast by £30m to £70m and next year's by £20m to £150m. The broker blamed the lack of recovery in the spare parts business this year, and a further exceptional charge to meet redundancy terms.

MARKET REPORTERS:
Daniel Green, Peter John, Joel Kibazo, Jim McCallum, Steve Thompson.

■ Other market statistics, including the FT-Actuaries Share Indices and London Traded Options, Page 22.

TRADING VOLUME IN MAJOR STOCKS

	Volume 000's	Closing Price	Day's change		Volume 000's	Closing Price	Day's change		Volume 000's	Closing Price	Day's change		Volume 000's	Closing Price	Day's change
ADT	112	532	+4	Cookson	381	124	-1	Lucas	4,700	139		Severn Trent Water	845	332	-6
ASDA Group	5,600	45	+1	Courtaulds	478	487	-2	MB Caradon	1,000	228	+2	Shell Transport	4,700	528	+12
Abbey National	1,800	289	-2	Dalgety	1,200	382	-5	MEPC	185	479	+2	Siebe	474	536	+2
Albert Fisher	715	90		De La Rue	97	447	+2	Manweb	383	305	-6	Slough Ests	751	282	+1
Allied-Lyons	1,500	598	-3	Dixons	710	248		Marks & Spencer	3,400	277	+1	Smith (W.H.) A	298	445	+4
Amstrad	1,200	36	+1	ECC Group	288	488		Maxwell Comms.	252	159	-2	Smith & Nephew	3,700	121½	-½
Anglian Water	314	367½	-5½	Eastern Elect.	282	236	-8	Midland Bank	1,500	259		SmKl Beecham	1,600	761	+14
Argos	1,000	304	+4	East Midland Elect.	228	257	-6	Midlands Elect.	875	278	-3	SmKl Beecham Uts.	349	3358	+40
Argyll Group	673	278	-1	Enterprise Oil	1,200	523	+18	NFC	1,800	218	+4	Smiths Inds.	194	282	-3
Arjo Wiggins	1,800	265	+4	Eurotunnel Units	605	458	+1	NatWest Bank	4,500	349	+4	Southern Elect.	876	265	-6
Ass. Brit. Foods	122	473	+2	FKI	1,000	68	-1	National Power	5,400	158	-3	South Wales Elect.	86	322	-7
BAA	2,600	436	-3	Ferranti	891	7		Next	2,000	49¼	+1	South West Water	439	348	+1
BAT Inds.	1,300	643	-4	Fisons	1,200	463	-1	North West Water	1,400	382	-4	South West. Elect.	233	280	-9
BET	1,700	325		Forte	728	273	+1	Northern Elect.	943	261	-7	Southern Water	882	329	
BICC	2,000	379	-5	Gen. Accident	378	609	-6	Northern Foods	581	551	+1	Standard Chartd.	1,000	395	-3
BOC	1,000	587	-2	General Elect.	2,200	193		Norweb	314	382	-4	Storehouse	985	108	+1
BPB Inds.	8,800	178		Glaxo	1,900	1401	+11	Pearson	431	757	+2	Sun Alliance	2,000	353	-7
BTR	1,200	409	+1	Glynwed Int.	481	227	-1	P & O	1,100	488	+4	T&N	1,260	161	
Bank of Scotland	1,200	117		Granada	4,800	173	-2	Pilkington	12,000	151	+1	TI Group	310	619	
Barclays	2,000	450	+1	Grand Met.	1,100	850	+2	PowerGen	5,300	171	-1	TSB	4,400	137	+1
Bass	211	980	-4	GUS A	280	1209	+24	Prudential	3,100	239	-3	Tarmac	929	174	-2
Beazer	1,500	115½		GRE	1,300	170	-1	RHM	1,100	256	-2	Tate & Lyle	477	388	+1
Berisford Int.	154	28		GKN	678	343	-7	RMC	243	581	-10	Taylor Woodrow	808	165	-1
Blue Circle	1,100	238	-3	Guinness	797	1025	-5	RTZ	1,700	558	+2	Tesco	2,500	248	+½
Booker	119	459	-1	Hammerson 'A'	364	603	+8	Racal	13,000	55½	-½	Thames Water	904	389	-4
Boots	1,800	426	+2	Hanson	11,000	218½	+½	Rank Org.	715	649	+8	Thorn EMI	325	787	-2
Bowater	123	695	+5	Hanson Warrants	1,000	28¾		Reckitt & Colman	478	671	-4	Tomkins	1,400	414	+2
Brit. Aerospace	1,300	377	-2	Harrisons Crosfield	1,900	162	+4½	Redland	554	528	-8	Trafalgar House	458	225	-4
British Airways	7,800	202	+6	Hawker Sidd.	582	744	-5	Reed Intl.	277	480	+3	Ultramar	8,400	259	-6
British Gas	7,000	257	-5	Hillsdown	9,800	209½	+1½	Rentokil	191	350		Unigate	698	327	+1
British Land	729	300	-1	IMI	580	234		Reuters	383	955	+19	Unilever	1,500	780	+6
BP	6,300	347	+5	ICI	813	1296	-12	Rolls Royce	3,700	137	-5	United Biscuits	866	382	-1
British Steel	12,000	115½	-2	Inchcape	562	388	-1	Rothmans	212	1130	+14	Utd. Newspapers	119	390	+2
British Telecom	9,900	399	-7½	Kingfisher	2,000	545	-4	Ryl Bk Scotland	631	184	+3	Vodafone	1,700	371	-6
Bunzl	101	98		Ladbroke	1,200	251	-1½	Royal Insurance	1,200	320	-7	Wellcome	818	720	+6
Burmah Castrol	973	594	+13	Land Securities	605	511	-2	Saatchi	2,000	14½	-¼	Welsh Water	195	373	-2
Burton	1,900	47	+1	Laporte	81	583	-13	Sainsbury	1,200	355	+1	Wessex Water	440	408	-2
Cable & Wire.	2,500	553	+1	Legal & General	975	392	-1	Scottish & New.	417	415	-2	Whitbread 'A'	398	485	-1
Cadbury	1,200	411	+2	Lloyds Abbey	1,000	401	-11	Scot. Hydro-Elect.	1,200	112½	-½	Williams Hldgs.	548	330	+1
Calor Group	10	340	+1	Lloyds Bank	2,100	407	+3	Scottish Power	2,000	108		Willis Corroon	462	301	+3
Carlton Comms.	532	520	-5	LASMO	2,200	315	+15	Sears	180	93		Wimpey	251	158	-2
Coats Viyella	2,160	178	+8	London Elect.	808	255	-10	Sedgwick	734	247	+1	Yorkshire Elect.	581	298	-8
Comm. Union	212	490	-7	Lonrho	2,600	246	+3	Seeboard	212	287	-5	Yorkshire Water	1,100	385	-7

Based on the trading volume for a selection of Alpha securities dealt through the SEAQ system yesterday until 4.30pm. Trades of one million or more are rounded down.

EQUITY FUTURES AND OPTIONS TRADING

THE December Footsie future contract was marked up sharply in early trading but failed to hold its strength and drifted off throughout the day, writes Peter John.

It opened at 2,630 but there was little support behind the rise. Gloomy industrial output figures and, later, speculation that an opinion poll would show today that the Tories have lost their political lead, ensured that December drifted off throughout the day. However, it maintained a strong premium to the underlying index. Volume was good, with more than 5,800 contracts traded by the official close, but traders said it was a difficult day with patchy dealing.

December closed at 2,616, virtually unchanged on the day and 41 above the index, against its estimated fair value premium of between 34.5 and 36. It was marked up during after-hours' trading on the back of strength in the US S & P futures.

On the LTOM, turnover in stock options was dominated by British Steel, which saw almost 7,000 lots dealt, equivalent to 7m underlying shares. Ultramar was active with 4,050 lots dealt. One house bought 1,000 of the out-of-the-money October 280 calls, a trade suggesting takeover speculation.

NEW HIGHS AND LOWS FOR 1991

NEW HIGHS (101).

BRITISH FUNDS (18) Treas. 2pc I-L 1992, Tr. 2pc I-L 1994, Tr. 2pc I-L 1996, Tr. 2pc I-L 2001, Tr. 2pc I-L 2003, Tr. 2pc I-L 2006, Tr. 2pc I-L 2009, Tr. 2pc I-L 2011, Tr. 2pc I-L 2013, Tr. 2pc I-L 2016, AMERICANS (2) Colgate-Palmolive, Morgan (JP), BANKS (6) Dai Ichi, Fuji Bank, Mitsubishi Bank, Mitsui Tst. & Banking, Nat. Aust. Bank, Yasuda Tst. & Banking, BUILDINGS (1) Polypipe, CHEMICALS (2) Canning (W), Plysu, STORES (8) Ashley (Laura), Etam, Fine Art Devs., Hartstone, Next, Sherwood, ELECTRICALS (4) Kewill Systems, Magnetic Materials, Telelonics, Vistec, ELECTRICITY (11) East Midlands, Eastern, London, Manweb, Midlands, Northern, Norweb, Seaboard, Southern, South Wales, Yorkshire, ENGINEERING (2) Prospect Inds., Victaulic, FOODS (2) Brake Bros., Cranswick Mill, INDUSTRIALS (17) BSS, Cornwell Parker A, EIS, Halma, Hays, Kalamazoo, ML Labs., Mitsubishi, Paterson Zoch., Do. A, RCO, Scott Pickford, Seton Healthcare, Silentnight, Sketchley, Tomkins, UDO, INSURANCE (2) Dominion & Gen., Lloyd Thompson, Taisho, LEISURE (6) Border TV, Central ITV, Grampian TV A, Scott. TV, SelecTV, NEWSPAPERS (1) Headline Book Pub., PAPERS (3) Fairway (London), Gold Greenlees Trott, Shandwick, PROPERTY (1) Prop. Sec. Inv., SHOES (1) Pittard Garnar, TEXTILES (2) Allied Textile, Toray, TRANSPORT (4) Brit. Airways, Do. 8¾pc Cv., CSX, Mayne Nickless, TRUSTS (15) Aberforth Split Level Units, Biotech Invs. Ptg. Pf., City of Oxford Zero Pf., Fidelity Japan OTC Warrants, For. & Col. Smaller Co's., GT Chile Fd. Units, Do. Warrants, Genesis Chile Fd. Ptg., I & S Opt. Inc. Tst. Zero Div., Murray Split Capital Units, Do. Zero Div. Pf., River Plate Zero Div Pf., Robeco, Rolinco, Templeton Emrg. Mkts. 1pc Loan, OILS (3) Global Natural Res., Mobil, Woodside.

NEW LOWS (23).

CANADIANS (1) Nova Corp. of Alberta, BREWERS (1) Burtonwood Brew. BUILDINGS (2) Costain, RMC, ELECTRICALS (1) Auto. Security, ENGINEERING (1) WB Inds., FOODS (1) Ashley Group, INDUSTRIALS (6) Bioplan, Oriflame, Shanks & McEwan, Tamaris 8½pc Pf., Tams (John), INSURANCE (1) Royal Insce., LEISURE (1) Cityvision, PROPERTY (1) Five Oaks Invs., TRANSPORT (1) Davies & Newman, TRUSTS (4) Govett Amer. Endeavour, JF Philippine Warrants, Malaysia Cap. Select, Turkey Tst., OILS (1) Midland & Scot. Res., PLANTATIONS (1) Williamson, MINES (1) Vizcaya.

LONDON SHARE SERVICE

BRITISH FUNDS

1991 High	1991 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
		"Shorts" (Lives up to Five Years)				
100⅛	99⅜	Exch. 11pc 1991	100⅛xd	.....	10.99	10.33
99⅜	96⅝	Treas. 8pc 1991	99⅜	.....	8.04	10.17
101⅛	100⅝	Treas. 12¾pc 1992‡‡	100⅝	.....	12.67	9.98
100⅛	97⅝	Treas 10pc 1992	99⅞	.....	10.01	10.01
133⅛	125⅞	Treas. 2pc IL 1992‡‡	133⅝	+⅛	2.05	7.92
99⅛	95⅛	Treas. 8pc 1992‡‡	99⅛	.....	8.08	9.90
100⅜	98½	Treas. 10½pc Cv 1992‡‡	100⅜	.....	10.46	9.88
96¾	91⅝	Treas. 3pc 1992	96⅝	+⅛	3.10	8.38
102⅜	100⅝	Exch. 12¼pc '92	101⅝	.....	12.02	9.81
104⅛	102⅜	Exch 13½pc 1992	103⅝	.....	13.07	9.73
98⅞	94	Treas 8¼pc 1993	98⅛	.....	8.40	9.68
100⅜	97⅛	Treas 10pc 1993‡‡	100⅜	+⅛	9.96	9.71
104⅛	102⅛	Treas 12½pc 1993‡‡	104⅛	.....	11.98	9.75
95⅛	89⅛	Funding 6pc 1993‡‡	95	.....	6.32	8.84
108⅛	105⅝	Treas 13¾pc 1993‡‡	107⅜	.....	12.81	9.74
97⅜	92⅛	Treas. 8½pc 1994	97½	+⅛	8.72	9.71
111⅝	108⅛	Treas 14½pc 1994‡‡	110	.....	13.18	9.69
109	105⅛	Exch 13½pc 1994	108⅜xd	.....	12.48	9.78
101⅛	96⅛	Treas. 10pc Ln. 1994‡‡	100⅝	.....	9.94	9.73
107⅛	103⅛	Exch. 12½pc 1994	106⅛	.....	11.74	9.81
98⅛	93⅛	Treas 9pc 1994‡‡	98⅛xd	.....	9.18	9.75
106⅛	102⅛	Treas 12pc 1995	106	-⅛	11.32	9.78
89	82⅛	Exch 3pc Gas 90-95	88⅝xd	.....	3.39	6.67
102⅛	96⅛	Exch. 10¼pc 1995	101⅛	-⅛	10.10	9.76
110⅛	105⅛	Treas 12¾pc 1995‡‡	109¾xd	+⅛	11.62	9.83
114⅛	109⅛	Treas. 14pc '96	113⅛	.....	12.34	10.02
99⅛	92⅛	Treas 9pc 1992-96‡‡	98⅛	.....	9.11	9.33
119⅛	115⅛	Treas 15¼pc 1996‡‡	118⅛xd	.....	12.84	10.01
112⅛	108	Exch 13¼pc 1996‡‡	112xd	+⅛	11.83	9.95
		Five to Fifteen Years				
101⅜	95⅛	Conversion 10pc 1996	100⅛xd	.....	9.91	9.77
101⅛	97⅛	Do. 10pc 1996 B	100⅛xd	.....	10.11	9.77
114⅛	108⅛	Treas 13¼pc 1997‡‡	113⅛	.....	11.71	9.95
103⅛	97⅛	Exch 10½pc 1997	102⅛	.....	10.22	9.80
96⅛	89⅛	Treas 8¾pc 1997‡‡	95⅛	.....	9.14	9.72
123⅛	117	Exch 15pc 1997	121⅝	-⅛	12.33	10.11
100⅛	93⅛	Exch. 9¾pc 1998	99⅛	.....	9.79	9.82
88⅛	80⅛	Treas 6¾pc 1995-98‡‡	87⅛xd	.....	7.70	9.31
128⅛	121⅛	Treas. 15½pc '98‡‡	127⅛	-⅛	12.19	9.99
111⅛	104⅛	Exch. 12pc 1998	110⅛	+⅛	10.86	9.92
100⅛	92⅛	Treas 9½pc 1999‡‡	99	-⅛	9.60	9.68
113⅛	105⅛	Exch. 12¼pc 1999	112	-⅛	10.94	9.93
104⅛	97⅛	Treas. 10½pc 1999	103⅛	+⅛	10.13	9.82
103⅛	95⅛	Conversion 10¼pc 1999	102⅛	+⅛	10.03	9.83
97⅛	89⅛	Conversion 9pc 2000‡‡	96⅛	.....	9.34	9.65
118⅛	110⅛	Treas. 13pc 2000	117⅛	-⅛	11.09	10.00
103⅛	94⅛	Treas 10pc 2001	101⅛	-⅛	9.86	9.75
119⅛	113⅛	Treas. 14pc '98-01	118⅛	-⅛	11.83	10.10
101⅛	92⅛	Treas 9¾pc 2002	100⅛	-⅛	9.74	9.74

BRITISH FUNDS—Contd

1991 High	1991 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
104⅛	94⅛	Treas 10pc 2003	102	+⅛	9.80	9.73
111	102	Treas. 11½pc 2001-04	109⅛xd	.....	10.52	9.96
62⅛	53⅛	Funding 3½pc '99-04	68⅛	-⅛	5.77	8.65
100⅛	90⅛	Conversion 9½pc 2004	98½xd	-⅛	9.64	9.71
25⅛	23⅛	Conversion 9½pc 2004 A	23⅛	-⅛	9.64	9.70
100⅛	90⅛	Conversion 9½pc 2005	98⅛xd	.....	9.64	9.70
121⅛	111	Treas. 12½pc 2003-05	119¼xd	+⅛	10.48	9.78
88⅛	79⅛	Treas. 8pc 2002-06‡‡	86⅛	-⅛	9.22	9.69
		Over Fifteen Years				
115⅛	105⅛	Treas. 11¾pc 2003-07	113⅛	-⅛	10.36	9.76
93⅛	84⅛	Treas 8½pc 2007‡‡	91⅛	-⅛	9.32	9.60
129⅛	118⅛	Treas. 13½pc '04-08	126⅛	+⅛	10.66	9.77
98	88⅛	Treas. 9pc 2008‡‡	95⅛	+⅛	9.41	9.53
89⅛	80	Treas 8pc 2009	86⅛	.....	9.20	9.54
97⅛	88⅛	Conv 9pc Ln 2011‡‡	95⅛	-⅛	9.44	9.53
98⅛	91⅛	Cov. 9pc 2011 A	95⅛	-⅛	9.51	9.55
66	58⅛	Treas. 5½pc 2008-12‡‡	64⅛	-⅛	8.59	9.48
85⅛	76⅛	Treas. 7¾pc 2012-15‡‡	83⅛	-⅛	9.31	9.55
125¼	113⅛	Exch. 12pc '13-'17	122⅛	+⅛	9.81	9.57
		Undated				
41¼	37⅛	Consols 4pc	40⅛	+⅛	9.79	-
37⅛	33⅛	War Loan 3½pc‡‡	36⅛	+⅛	9.57	-
60⅛	57⅛	Conv. 3½pc '61 Aft.	59⅛	+⅛	5.84	-
30⅛	28¼	Treas. 3pc '66 Aft.	30xd	.....	10.00	-
26⅛	23⅛	Consols 2½pc	25½xd	.....	9.80	-
26⅛	23⅛	Treas. 2½pc	25¼	.....	9.90	-
		Index-Linked (b)			(1)	(2)
122⅛	115⅛	Treas. 2pc '94 (102.9)	122⅛xd	+⅛	2.43	3.52
176⅛	168⅛	Do. 2pc '96 (67.9)	176⅛	.....	3.26	3.85
144⅛	137⅛	Do 2½pc '01 (78.3)	144⅛	+⅛	3.80	4.13
140⅛	133	Do. 2½pc '03 (78.8)	140⅛xd	+⅛	3.88	4.16
143	135	Do. 2pc '06 (69.5)	142⅛	.....	3.97	4.20
130⅛	124⅛	Do. 2½pc '09 (78.8)	130⅛xd	.....	4.01	4.22
135	128⅛	Do. 2½pc '11 (74.6)	134⅛	.....	4.03	4.22
111⅛	105⅛	Do. 2½pc '13 (89.2)	111⅛	+⅛	4.03	4.21
118⅛	113⅛	Do. 2½pc '16 (81.6)	118⅛	.....	4.04	4.21
113⅛	109⅛	Do. 2½pc '20 (83.0)	113⅛	.....	4.05	4.20
95⅛	91⅛	Do. 2½pc '24‡‡ (97.7)	94	.....	4.04	4.17

Prospective real redemption rate on projected inflation of (1) 10% and (2) 5%. (b) Figures in parentheses show RPI base for indexing, (ie 8 months prior to issue) and have been adjusted to reflect rebasing of RPI to 100 in January 1987. Conversion factor 3.945. RPI for February 1991: 130.9 and for September 1991: 134.6.

INT. BANK AND O'SEAS

1991 High	1991 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
107⅛	95⅛	African Dv Bk 11¼ Ln 2010	105⅛	-⅛	10.56	10.45
102⅛	91⅛	Asian Dev Bk 10¼pcLn2009	100⅛	+⅛	10.23	10.22
116⅛	105⅛	Int-Am Dev Bk 12½pc 2003	113⅛	.....	10.99	10.38
97⅛	86⅛	Do. 9½pcLn 2015	95⅛	+1⅛	10.23	10.28
125	101	Utd. Mexican States 16½pc 2008	123½	-½	13.36	12.90

CORPORATION LOANS

1991 High	1991 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
104⅛	100⅛	Birmingham 11½pc 2012	104	+⅛	11.06	11.00
98⅛	93⅛	GLC 6¾pc 1990-92	98⅛	.....	6.84	10.80
119½	110½	Leeds 13½pc 2006	117⅛	.....	11.49	11.06
31	28	Liverpool 3½pc Irred	30½	.....	11.48	-
27½	26	LCC 3pc '20 Aft	27⅛	+⅛	11.01	-
105½	97½	Manchester 11½pc 2007	105¼	.....	10.93	10.80

COMMONWEALTH & AFRICAN LOANS

1991 High	1991 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
95	84½	Sth Rhod. 87-92 Assd	95	.....	4.74	-

LOANS

Building Societies

1991 High	1991 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
106	102	N'wide Anglia 3¾pc Ln 2021	106	+⅛	-	5.37
107⅛	104	Do. 4.25pcIL '24	107⅛	+⅛	-	5.01

Public Board and Ind.

1991 High	1991 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
53	52	Met. Wtr. 3pc 'B'	53	.....	5.66	9.90

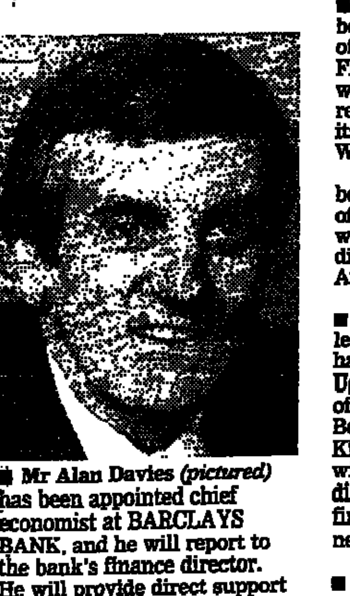
FOREIGN BONDS & RAILS

1991 High	1991 Low	Stock	Price £	+ or –	Div % Gross	Red. Yield
50	50	Greek 7pc Ass.	50	.....	3.50	f7.00
50	50	Do. 6pc 28 Stb. Ass.	50	.....	3	f6.00
50	50	Do 4pc Mixed Ass.	50	.....	2	f4.00
55	55	Hung. '24 Ass.	55	.....	2.75	f3.57
133⅛	120⅛	Hydro Quebec 15pc 2011	131⅛	-⅛	15.0	11.05

Continued on next page

APPOINTMENTS

Barclays Bank chief economist



■ Mr Alan Davies (*pictured*) has been appointed chief economist at BARCLAYS BANK, and he will report to the bank's finance director. He will provide direct support to Barclays' senior executives and briefings to the board on economic and financial matters.

Mr Davies retains responsibility for the economics department and the services it provides to the bank and the bank's customers, including editorial management of the Barclays' economic publications.

He joined Barclays in 1969 and moved to the bank's economics department in 1974. He is a regular contributor of articles to a number of publications, and a frequent commentator on economic matters for radio and television programmes.

■ Mr John Gregory has become an executive director of SINGER AND FRIEDLANDER HOLDINGS, with the particular responsibility of developing its banking activities in the West Midlands.

Mr Gregory, who has also been appointed to the board of Singer & Friedlander Ltd, was previously managing director (banking) at Henry Ansbacher & Co.

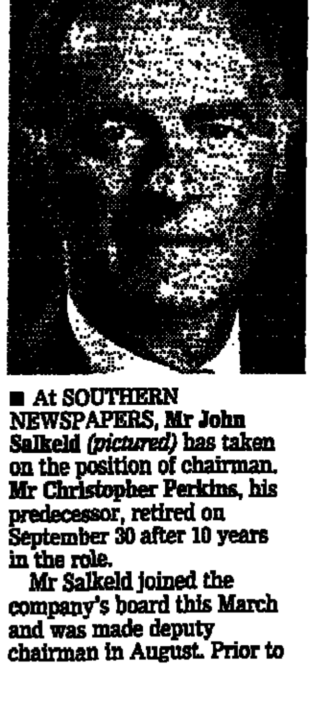
■ KIDDER PEABODY, a leading US investment bank, has appointed Mr Georges Ugeux, former chief financial officer of Société Générale de Belgique, as president of Kidder Peabody – Europe. He will join Kidder as a managing director and member of the firm's management committee next January.

■ THE 600 GROUP HAS NAMED Mr Ken Fowler as director of personnel. He was head of personnel for the International Food and Agribusiness division of Berisford International, and prior to that company personnel manager for British Sugar.

■ AMERICAN EXPRESS has made Mr John Crewe senior vice-president and managing director of its Travel Related Services (TRS) division in the UK.

In addition to his responsibilities for the UK market, Mr Crewe has overall responsibility for Ireland, Scandinavia, Middle East, Africa, Eastern Mediterranean and US Dollar Card operations.

He succeeds Mr Alan Stark, who takes up a new position of senior vice-president business partners, Europe, Middle East and Africa. Mr Crewe returns to TRS from Acuma Ltd, American Express's personal financial planning company in the UK.



■ At SOUTHERN NEWSPAPERS, Mr John Salkeld (*pictured*) has taken on the position of chairman. Mr Christopher Perkins, his predecessor, retired on September 30 after 10 years in the role.

Mr Salkeld joined the company's board this March and was made deputy chairman in August. Prior to joining the board of Southern Newspapers, he was for 10 years a partner with Binder Hamlyn, chartered accountants, and then for three years director of finance at GEC. Latterly, he was deputy chief executive of Myson Group, now part of Blue Circle Industries.

Mr James Sexton became chief executive of Southern Newspapers on July 1, while Mr Colin Rowley joined the board as finance director in May.

■ BRINTONS CARPETS announced that Mr C.T.C. Brinton has relinquished his chairmanship of the company due to ill health. Mr M.A.C. Brinton has been appointed as the new chairman.

■ At BANKERS TRUST, Mr Matthew Hale, vice-president, has returned from Hong Kong to take over the bank's UK and European treasury group. Mr Duncan Hennes, managing director, based in New York, is assuming responsibility for the UK and European treasury group worldwide.

■ BRISTOL WATER has named Mr Alan Parsons as finance director. He will also be an executive board member.

His appointment to the newly created post represents a strengthening of the company's senior management team as it moves towards plc status.

Mr Parsons was previously employed by Minworth Group as group finance director and company secretary.

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AMERICANS

1991 High	Low	Stock	Price £	+ or –	Div Gross	C'vr	Y'ld Gr's
33¼	20¾	Abbott Laboratories	31½xd	+½	$1.00	–	1.9
385p	243p	Allegheny & W 1c	249p	+5	30c	–	7.1
10⅛	667p	Amdahl 5c	819pxd	+20	10c	–	0.7
42¼	25¼	Amer. Cyanamid $5	38	+¼	$1.50	–	2.3
17¾	9½	Amer. Express 60c	12¼xd	.....	$1.00	–	4.9
24½	15¼	American T. & T. $1	21½xd	+½	$1.32	–	3.6
38¾	32½	Ameritech $1	35¾	+¼	$3.40	–	5.6
24	12¼	BankAmerica $1 ⅝	23¼xd	+¾	$1.20	–	3.1
35½	20¼	Bankers N.Y. $1	34¼xd	-1½	$1.52	–	8.4
30½	24¼	Bell Atlantic $1	26⅝xd	+⅝	$2.52	–	5.6
31¼	25	BellSouth Corp.	28¼	+¼	$2.76	–	5.8
11¼	6¾	Bethlehem Steel $8	8¼xd	+¼	40c	–	2.7
1839p	1046p	Bowater Inc.	1345p	-14	$1.20	–	5.3
54½	37½	CPC Intnl. 25c	50¼xd	+⅝	$2.00	–	2.3
930p	420p	California Engy	870p	+4	–	–	–
50	28¼	Campbell Soup 15c	44¾xd	+½	$1.16	–	1.6
12¾	5⅜	Chase Manhattan $12½	10¾xd	.....	$1.20	–	6.6
9¾	5½	Chrysler $6¼	6⅝xd	+⅛	60c	–	5.4
10⅝	5¾	Citicorp $1	7½xd	+¼	$1.00	–	7.4
25¼	21¼	Colgate-Palmolive $1	25¼xd	+¾	$1.06	–	2.5
926p	436p	Cont'l Bank Corp $4	651p	+4	60c	–	5.4
21¾	13½	Dana Corp. $1	16¾xd	+¼	$1.60	–	5.7
1257p	203p	Data General	1221p	+44	–	–	–
22⅛	12¾	Dial Crop. $1.5	21½xd	+¼	$1.40	–	3.8
29⅝	20¼	Dun & Bradstreet $1	27¼	+½	$2.16	–	4.6
40	24¼	Eaton Corpn. 50c	35⅜	+⅝	$2.20	–	–
8½	5¼	Echlin Inc.	7½xd	.....	70c	–	5.8
20½	14¾	FPL Group 1c	19⅝xd	+¼	$2.40	–	7.2
30¾	17¾	Fluor Corp 62½pc	25¼xd	-¼	32c	–	0.7
23¼	13⅛	Ford Motor $1	17¼	.....	$1.60	–	3.4
46½	28¾	Gen. Elect. 63c	39½xd	+¾	$2.04	–	3.1
566p	270p	General Host Corp $1	453p	-13	34c	–	4.4
45¼	20¾	Gillette $1	23⅝xd	+½	62c	–	1.6
18⅛	794p	Hasbro Inc 50c	17	.....	24c	–	0.8
38½	21¼	Honeywell $1½	32¼xd	+¾	$1.50	–	2.8
23¼	17¾	Houston Inds.	22¾	+¼	$2.96	–	7.6
72½	55½	IBM Corpn $1¼	59¼xd	+1¼	$4.84	–	4.8
32½	18¾	Ingersoll-Rand $2	28¼xd	+½	$1.32	–	2.8
28¼	16¼	Lockheed Crpn. $1	23½xd	+¼	$2.00	–	5.0
2155p	1245p	Lowe's 50c	1784p	-18	56c	–	1.9
18¾	9½	Manuf. Hanover $1	16¼xd	+¼	$3.28	–	12.1
28¼	10¼	Merrill Lynch $1	28¼xd	+1¼	$1.00	–	2.1
37½	21½	Morgan (JP) $2½	37½xd	+1	$1.98	–	3.1

CANADIANS

BANKS, HP & LEASING

Hire Purchase, Leasing, etc.

BEERS, WINES & SPIRITS

BUILDING, TIMBER, ROADS

BUILDING, TIMBER, ROADS – Contd

CHEMICALS, PLASTICS

DRAPERY AND STORES

DRAPERY AND STORES – Contd

ELECTRICALS

ELECTRICITY

ENGINEERING

FOOD, GROCERIES, ETC

HOTELS AND CATERERS

INDUSTRIALS (Miscel.)

INDUSTRIALS (Miscel.) – Contd

INDUSTRIALS (Miscel.) – Contd.

INSURANCES

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LEISURE—Contd

MOTORS, AIRCRAFT TRADES

Commercial Vehicles

Components

Garages and Distributors

NEWSPAPERS, PUBLISHERS

PAPER, PRINTING, ADVERTISING

PROPERTY

PROPERTY—Contd

SHOES AND LEATHER

SOUTH AFRICANS

TEXTILES

TOBACCOS

TRANSPORT

INVESTMENT TRUSTS

INVESTMENT TRUSTS—Contd

Net asset values supplied by County NatWest Wood Mackenzie as a guide only.

FINANCE, LAND, ETC

FINANCE, LAND, ETC—Contd

WATER

OIL AND GAS

PLANTATIONS

Rubbers, Palm Oil

Teas

MINES

Central Rand

Eastern Rand

Far West Rand

O.F.S.

Diamond and Platinum

Central African

Finance

MINES—Contd

Australians

Tins

Miscellaneous

NOTES

Stock Exchange dealing classifications are indicated to the right of security names: α Alpha refers to shares traded through SEAQ by at least two marketmakers and with a normal market size of 2,000 or more, based on experience of how many of its shares are traded in the typical deal. β Beta refers to all other shares. γ Gamma refers to other traded instruments.

Highs and lows are based on intra-day mid prices. Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on "net" distribution basis, earnings per share being computed on profit after taxation and unrelieved ACT where applicable; bracketed figures indicate 10 per cent or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution; this compares gross dividend costs to profit after taxation, excluding exceptional profits/losses but including estimated extent of offsettable ACT. Yields are based on middle prices, are gross, adjusted to ACT of 25 per cent and allow for value of declared distribution and rights.

Estimated Net Asset Values (NAVs) are shown for Investment Trusts, in pence per share, along with the percentage discounts (Dis) or premiums (Pm -) to the current pre-closing share price. The NAV basis assumes prior charges at par value, convertibles converted and warrants exercised if dilution occurs.

- ● "Tap Stock"
- * Highs and lows marked thus have been adjusted to allow for rights issues for cash
- † Interim since increased or resumed
- ‡ Interim since reduced, passed or deferred
- ‡‡ Tax-free to non-residents on application
- ◆ Figures or report awaited
- ♥ Not officially UK listed; dealings permitted under rule 535(4)(a)
- ♦ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- ‡‡ Not officially listed.
- # Price at time of suspension
- ¶ Indicated dividend after pending scrip and/or rights issue; cover relates to previous dividend or forecast.
- ♦ Merger bid or reorganisation in progress
- [illegible] Not comparable
- [illegible] Same interim; reduced final and/or reduced earnings indicated
- § Forecast dividend; cover based on earnings updated by latest interim statement.
- [illegible] Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ☆ Cover does not allow for shares which may also rank for dividend at a future date. No P/E usually provided.
- [illegible] No par value

B.Fr. Belgian Francs. Fr. French Francs. [illegible] Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. a Annualised dividend. b Figures based on prospectus or other official estimates. c Cents. d Dividend rate paid or payable on part of capital, cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending q Earnings based on preliminary figures. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast, or estimated annualised dividend rate, cover based on previous year's earnings. v Subject to local tax. x Dividend cover in excess of 100 times. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1990-91. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1991. K Dividend and yield based on prospectus or other official estimates for 1990. L Estimated annualised dividend, cover and P/E based on latest annual earnings. M Dividend and yield based on prospectus or other official estimates for 1991-92. N Dividend and yield based on prospectus or other official estimates for 1989-90. P Figures based on prospectus or other official estimates for 1991. Q Gross. R Forecast annualised dividend, cover and p/e based on prospectus or other official estimates. T Figures assumed. W Pro forma figures. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xd ex capital distribution.

REGIONAL & IRISH STOCKS

The following is a selection of Regional and Irish stocks, the latter being quoted in Irish currency.

Craig & Rose £1 β	638	.....
Finlay Pkg. 5p β	28xd	.....
Holt (Jos) 25p β	1985	.....
Helton Hldgs. γ	37	.....
IRG	125	.....
United Drug	165	.....

IRISH

Cap. 8½% Ln. 2010	£94¾	+¼
9pc Cap Ln. 1996	£98½	+¼
Fin. 13% 97/02	£314	+¼
Arnotts	190	.....

TRADITIONAL OPTIONS

3-month call rates

Industrials

	p
Allied-Lyons	50
Amstrad	6
Astec (BSR)	5
BAT	53
BOC Grp	48
BTR	33
Barclays	34
Blue Circle	28
Boots	33
Bowaters	55
Brit Aerospace	35
British Steel	10
Brit. Telecom	35
Cadburys	35
Charter Cons	42
Comm Union	40
Courtaulds	38
Eurotunnel	50
FKI	5
FNFC	10
Forte	21
Gen Accident	43
GEC	16
Glaxo	110
Grand Met	67
Guardian	14
GKN	28
Hanson	17
Hawker Sidd	55
ICI	95
Ladbroke	21
Legal & Gen	33
Lex Service	16
Lloyds Bank	30
Lucas Inds	12
Marks & Spencer	21
Midland Bk	20
Nat West Bk	26
P & O Dfd	41
Racal Elect	6
RHM	23
Rank Org Ord	55
Ratners	12
Reed Intnl	35
Sears	8½
SmKl. Beecham A	53
TI	39
TSB	11
Tesco	21
Thorn EMI	65
T&N	14
Unilever	60
Vickers	16
Wellcome	60

Property

Brit Land	27
Control Secs	2
Land Securities	41
MEPC	42
Mountleigh	4

Oils

Aviva Petlm	3
Brit Petroleum	26
Burmah Castrol	47
Conroy Petlm	8
Gaelic Res	1
Premier	4
Shell	48
Tuskar Res	1
Ultramar	20

Mines

Lonrho	20
RTZ	46

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AUTHORISED UNIT TRUSTS

	Init Chrge	Canc. Price	Bid Price	Offer Price	+ or -	Yield Gr's
Abbey Unit Tst Mngrs (1000)H						
80 Holdenhurst Rd, Bournemouth 0345 717373						
High Income						
Gilts & Fixed Int.	6	116.0	116.0	123.0	+0.1	9.35
High Inc Equity	6	133.3	136.9	145.5	+1.0	5.84
Worldwide Bond	6	215.8	215.8	228.9	+1.0	6.55
Capital Growth						
American Growth	6	204.6	204.6	218.8	+4.6	1.02
Asian Pacific	6	119.0	121.4	129.1	+0.8	1.22
Assets & Earnings	6	183.2	187.1	199.0	+1.1	3.02
Capital Reserve Acc	0	109.67	109.67	109.67	+0.14	6.92
Capital Reserve Inc	0	86.68	86.68	86.68	+0.11	6.92
Comdty & Energy	6	74.90	74.90	80.10	+1.16	1.70
1992 Enterprise	6	65.50	65.50	70.05	+0.54	2.94
Euro Capital Acc	6	86.25	86.25	92.24	-0.27	1.13
Euro Capital Inc	6	82.40	82.40	88.12	-0.26	1.13
General	6	175.2	175.2	187.3	+1.7	2.67
Japan	6	104.5	105.6	112.3	+0.9	—
Mastertrust	6	91.88	91.88	98.26	+0.49	2.61
UK Growth Acc	6	174.3	174.3	186.4	+1.4	2.14
UK Growth Dist	6	110.8	110.8	118.5	+0.9	2.18
US Emerging Cos	6	72.38	73.84	78.55	+1.63	—
Income & Growth	6	307.5	307.5	328.8	+2.2	4.26
Ethical	6	54.00	54.00	57.75	+0.39	2.70
International	6	63.13	64.00	68.08	+0.42	1.29
Dividend & Growth	6	49.88	51.12	54.38	+0.31	5.52
Global Gwth & Sec	6	52.69	52.96	56.33	+0.05	3.09
Aberforth Unit Trust Managers Ltd (1600)F						
16 Chester St, Edinburgh EH3 7RA 031 220 0733						
UK Small Cos	0	1122.0	1122.0	1176.0		0
Abtrust Unit Trust Managers Ltd (1200)H						
10 Queens Terrace, Aberdeen AB9 1QJ 0800 833580						
Amer Inc & Growth	5¼	30.79	30.79xd	32.63	+0.66	2.44
Cash	—	50.47	50.47xd	50.47	+0.01	9.87
European	5¼	68.15	68.15	72.25	-0.02	0.32
European Income	5¼	71.22	71.60	75.54	-0.13	1.62
Exempt	1	797.6	797.6xd	822.9	-0.7	4.96
Extra Income	5¼	39.57	39.57xd	43.02	+0.21	5.76
Far East Emerg Econs	5¼	47.49	47.49	51.03	+0.41	1.26
Bishopsgate Progressive Mgmt Co (1200)F						
15 St James' Place London SW1A 1NW 071-493 8111						
Progressive Inc	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Progressive Acc	5	27.82	[illegible]	29.36	[illegible]	[illegible]
International Inc	5	19.53	19.53	[illegible]		[illegible]
International Acc	5	[illegible]	[illegible]	[illegible]		[illegible]
Can & Foreign Inc	5	227.7	227.7	240.2		[illegible]
Can & Foreign Acc	5	[illegible]	[illegible]	[illegible]		[illegible]
Special Sits Inc	5	205.7	205.7	217.1		[illegible]
Special Sits Acc	5	223.4	223.4	235.8		[illegible]
PEP Inc	5	[illegible]	137.9	[illegible]		[illegible]
PEP Acc	5	143.5	147.1	155.3		[illegible]
Growth Inc	5	79.84	79.34xd	84.26		[illegible]
Growth Acc	5	80.65	80.65	85.12		[illegible]
Brewin Dolphin Unit Tst Mgrs Ltd (0905)F						
5 Giltspur St, London EC1A 9DE 071-236 [illegible]						
Dolphin Special Sits	5¼	124.1	124.1	132.7	+0.5	[illegible]
Dolphin Dividend	5¼	59.17	59.17	63.29	+0.79	[illegible]
Dolphin Intl Inc & Gth	5¼	156.6	156.6	[illegible]	+1.5	[illegible]
Dolphin UK & Gen	5¼	34.62	34.79	37.20	[illegible]	[illegible]
Dolphin Fed of Funds	5¼	47.62	49.67	53.12	-0.05	[illegible]
Britannia Life Unit Managers Ltd (1200)H						
150 West George St, Glasgow G2 2PA 041-332 313[illegible]						
Balanced Growth	6	78.44	78.92xd	84.44	+0.34	[illegible]
Do (Accum)	6	84.17	[illegible]	90.61	[illegible]	[illegible]
Service Cos	6	69.06	69.06	73.86	[illegible]	[illegible]
Do (Accum)	6	72.65	72.65	77.70	+0.33	[illegible]
Income Growth	6	42.98	42.98	45.97	[illegible]	[illegible]
Do (Accum)	6	60.52	60.52	64.73	+0.17	[illegible]
Higher Yield	6	32.58	32.77xd	35.05	+0.41	[illegible]
Do (Accum)	6	41.73	41.98	44.90	+0.53	[illegible]
American Gth Inc	6	33.41	33.41	35.73	+0.64	[illegible]
Do (Accum)	6	34.05	34.05	36.41	+0.56	[illegible]
European Growth	6	24.52	24.51xd	26.22	[illegible]	[illegible]
Do (Accum)	6	25.35	25.35	27.11	[illegible]	[illegible]
Global Bond Inc	6	23.11	23.19	24.80	[illegible]	[illegible]
Do (Accum)	6	26.71	26.90	28.66	[illegible]	[illegible]
Managed P'folio Inc	6	25.63	25.71xd	27.50	+0.14	
(Do Accum)	6	25.63	25.71	27.50	+0.14	

For Geoffrey Morley see Commercial Union

Guide to pricing of Authorised Unit Trusts

Compiled with the assistance of Lautro §§

INITIAL CHARGE: Charge made on sale of units. Used to defray marketing and administrative costs, including commission paid to intermediaries. This charge is included in the price of units.

OFFER PRICE: Also called issue price. The price at which units are bought by investors.

BID PRICE: Also called redemption price. The price at which units are sold back by investors.

CANCELLATION PRICE: The minimum redemption price. The maximum spread between the offer and bid prices is determined by a formula laid down by the government. In practice, most unit trust managers quote a much narrower spread. As a result, the bid price is often set above the cancellation price. However, the bid price might be moved to the cancellation price by the managers at any time, usually in circumstances in which there is a large excess of sellers of units over buyers.

TIME: The time shown alongside the fund manager's name is the time of the unit trust's valuation point unless another time is indicated by the symbol alongside the individual unit trust name. The symbols are as follows: (♥) - 0001 to 1100 hours; (♣) - 1101 to 1400 hours; (♦) - 1401 to 1700 hours; (♠) - 1701 to midnight. Daily dealing prices are set on the basis of the valuation point; a short period of time may elapse before prices become available.

HISTORIC PRICING: The letter H denotes that the managers will normally deal on the price set on the most recent valuation. The prices shown are the latest available before publication and may not be the current dealing levels because of an intervening portfolio revaluation or a switch to a forward pricing basis. The managers must deal at a forward price on request, and may move to forward pricing at any time.

FORWARD PRICING: The letter F denotes that the managers deal at the price to be set on the next valuation. Investors can be given no definite price in advance of the purchase or sale being carried out. The prices appearing in the newspaper are the most recent provided by the managers.

SCHEME PARTICULARS AND REPORTS: The most recent report and scheme particulars can be obtained free of charge from fund managers.

Other explanatory notes are contained in the last column of the FT Managed Funds Service.

§§ Life Assurance and Unit Trust Regulatory Organisation, Centre Point, 103 New Oxford Street, London WC1A 1QH. Tel: 071 – 379 – 0444.

FT MANAGED FUNDS SERVICE

● Current Unit Trust prices are available on FT Cityline. Calls charged at 48p per minute peak and 36p off peak, inc VAT. To obtain your free Unit Trust Code Booklet ring (071) 925-2128.

	Bid Price	Offer Price	+ or −	Yield Gross
Funds in Court*				
Capital Oct 3	496.84	500.54	....	2.82
Gross Oct 3	190.05	191.58	....	10.18
High Yield Oct 3	300.19	302.61	....	7.27

* Restricted to monies under Court control

	Bid Price	Offer Price	+ or −	Yield Gross
Henderson Unit Trust Management Ltd				
Precious Mngd	52.77	53.89	+0.09	1.49
INVESCO MIM Management Ltd				
Exempt Funds				
Intl Mngd P'Folio	1232.0	1306.0	....	-
Mngd Pens (Acc)	70.0	74.6	....	-
Lazard Brothers & Co. Ltd				
Property Sept 5	£2,480.0	2680.0	....	6.00
Inc Gth Prp Apr 16	£1,325.0	1440.0	....	7.28
Lazard Investors Ltd				
Exempt Funds				
Small Co's Oct 10	£3937.1	4003.9	....	3.96
European Oct 10	£536.2	541.9	....	2.09
American Oct 10	£353.4	357.2	....	2.27
Japan Oct 10	£531.4	537.1	....	1.21
Pacific Oct 10	£139.5	142.9	....	1.94
W Midlands Sep 30	£147.60	164.90	....	2.48
Local Authorities Mutual Invest. Tst.*				
2 Fore Street, London EC2Y 5AQ 071-588 1815				
Property Sep 30	193.05	196.90	....	7.81
Equity Sep 30	893.70	906.20	....	3.99

* Available only to Local Authorities

	Bid Price	Offer Price	+ or −	Yield Gross
M & G Securities Ltd				
Charibond Oct 14		103.69		10.39
(Accum Units)		595.83	-0.4	10.39
NAACIF Oct 8		43.24	-	9.09
Morgan Grenfell Unit Trust Managers Ltd				
Exempt Funds				
UK Equity Oct 15	127.3	136.3	-2.7	3.76
UK Small Co Oct 15	547.7	596.0	-2.2	3.37
Fixed Interest Oct 15	112.2	118.1	..	8.45
US Small Co Oct 15	159.7	170.8	+0.9	0.00
Managed Oct 15	108.4	115.8	-0.9	3.41

INSURANCES

OTHER UK UNIT TRUSTS

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N & P Life Assurance Ltd
6-7 Bedford Row, London, WC1R 4UJ 071-430 2348

	Bid Price	Offer Price	+ or -	Yield Gross
Life Managed Fd	106.1	111.8	...	-
Pension Managed Fd	106.0	111.6	...	-
Life Deposit Fd	110.0	115.8	...	-
Pension Deposit Fd	116.3	122.4	...	-

For National Fin see Target Life

National Mutual Life
The Priory, Priory Pk, Hitchin, SG5 2DW 0462 422422
Harvester Pension Funds

	Bid Price	Offer Price	+ or -	Yield Gross
Managed	168.6	177.5	...	-
UK Equity	180.4	189.9	...	-
Overseas Equity	132.3	139.3	...	-
Fixed Interest	154.9	163.1	...	-
Property	134.9	142.0	...	-
Index Linked	151.5	159.5	...	-
Deposit	162.3	170.9	...	-
With Profits (B)	132.8	139.8	...	-

National Provident Institution
48 Gracechurch St, London EC3P 3HH 071-623 4200

	Bid Price	Offer Price	+ or -	Yield Gross
Managed	358.4	377.3	+1.8	-
UK Equity	452.6	476.5	+1.2	-
Overseas Eq.	346.9	365.2	+3.7	-
Americas	291.0	306.4	+6.4	-
Far East	383.1	403.3	+3.4	-
Property	193.8	204.1	-0.1	-
Fixed Int.	269.9	284.2	+0.3	-
Indexed Gilt	161.7	170.3	+0.3	-
Deposit	186.4	196.3	...	-
With Profit	103.8	109.3	...	-

Pension Fund (Accum Units)

Providence Capital Life Assc. Co Ltd
2 Bartley Way, Hook, Hants RG27 9XA 0256 768888

	Bid Price	Offer Price	+ or -	Yield Gross
UK Equity Acc.	228.1	240.7	+0.8	-
UK Fixed Int Acc.	185.9	196.2	...	-
Intl Equities Acc.	175.0	184.7	+1.6	-
UK Managed Acc.	175.8	185.4	+0.6	-
Property Acc.	226.5	239.0	...	-
Money Acc.	132.6	139.9	...	-
Special Market Acc.	152.4	160.8	+1.0	-
Japan Equity Acc.	105.7	111.6	+0.6	-
North American Acc.	104.0	109.8	+1.8	-
Pacific Acc.	94.9	100.2	+0.9	-
Technology Acc.	124.7	131.6	+2.9	-
Nat Resources Acc.	55.4	58.5	+0.4	-
European Acc.	99.5	105.0	-0.1	-
Residential Prop Acc.	94.6	99.8	...	-
Swiss Equities Acc.	33.2	35.1	-0.1	-
Hong Kong Acc.	68.6	72.4	+0.5	-
UK High Inc Eq Acc.	74.3	78.4	+0.1	-
Int Fixed Interest Acc.	60.3	63.7	...	-
Int Managed Acc.	56.6	59.7	+0.4	-
HIP Managed Acc	118.0	124.4	+0.7	-
HIP Managed II Acc	103.6	109.2	+0.2	-
HIP Managed III Acc	110.6	116.6	+0.5	-
Total Investment Bond				
UK Equity Initial		154.9	+0.5	-
UK Fixed Int Initial		126.4	...	-
Intl Equities Initial		118.2	+1.2	-
UK Managed Initial		119.5	+0.4	-
Property Initial		155.1	...	-
Money Initial		90.6	...	-
Special Market Initial		128.2	+0.8	-
Japan Equity Initial		82.0	+0.4	-
North American Initial		80.6	+1.3	-
Pacific Initial		73.6	+0.7	-
Technology Initial		96.6	+2.1	-
Nat Resources Initial		43.0	+0.3	-
European Initial		89.1	-0.1	-
Residential Prop Init.		90.2	...	-

OFFSHORE INSURANCES

OFFSHORE AND OVERSEAS

BERMUDA (SIB RECOGNISED)

CANADA (SIB RECOGNISED)

GUERNSEY (SIB RECOGNISED)

MANAGEMENT SERVICES

GUERNSEY (REGULATED)

IRELAND (SIB RECOGNISED)

IRELAND (REGULATED)

هكذا من الأصل

FT MANAGED FUNDS SERVICE

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Baring International Fd Mngrs (Ireland) Ltd

Federated International Funds Plc

ISLE OF MAN (SIB RECOGNISED)

ISLE OF MAN (REGULATED)(**)

JERSEY (SIB RECOGNISED)

Midland Bank Fund Managers (Jersey) Ltd

Royal Trust Jsy Fd Mngt Ltd (1400)F

TSB Trust Funds (CI)

JERSEY (REGULATED)(**)

Warburg Asset Management Jersey Ltd

Wardley Fund Managers (Jersey) Ltd

Worldinvest (Managers) Jersey Ltd

LUXEMBOURG (SIB RECOGNISED)

Henderson Management SA (u)

Hill Samuel Inv Services Intl SA (u)

Asian Development Equity Fund

Atlantas Sicav

Banque Ferrier Lullin (Lux) SA

Banque Paribas Luxembourg

CB Fund International (u)

CM Investment Serial Funds

Capel-Cure Myers Intnl Fd Sicav (u)

Codevalor (u)

LUXEMBOURG (REGULATED)(**)

Top Brand Fund Intl-SICAV (u)

Transworld Bond Trust

US Pacific Stock Fund (u)

Unibank SA, Frontrunner I (u)

Unico Financial Services SA Lux

Viking Fund-SICAV

"WINTERTHUR" Fund Mngmt Co (Lux) SA

World Bond Fund-SICAV (u)

SWITZERLAND (SIB RECOGNISED)

OTHER OFFSHORE FUNDS

GT Management Plc—Contd.

Gaia Currency Funds

Gartmore Investment Ltd

Genesis Fund Managers Ltd

Newport International Management

Nomura Warrant Fund 1990 Ltd

North Star Fund Managers (Cayman) Ltd

MANAGED FUNDS NOTES

CURRENCIES, MONEY AND CAPITAL MARKETS

FOREIGN EXCHANGES

Dollar firm on Soviet worries

THE DOLLAR drifted higher and the D-Mark weakened yesterday as concern began to grow over the mounting economic crisis in the Soviet Union.

The difficulties faced by the Soviet Union emerged at the Group of Seven finance ministers meeting in Bangkok. A shortage of currency reserves implies that the Soviet Union may be unable to meet payments on foreign debt without outside assistance.

Mr Grigory Yavlinsky, the economist responsible for economic policy in the Soviet Union, also said the country only had two months of currency reserves left, while its gold reserves were much lower than previous estimates.

The worries about the Soviet Union came as sentiment was begining to turn on the dollar. Currency dealers said the change was not related to fundamental factors and was merely technical. Nevertheless, further gains are expected in the coming days.

The dollar closed higher at DM1.7115 from DM1.6995; at SFr1.4935 from SFr1.4855; at Y130.20 from Y129.35; and at FFr5.8275 from FFr5.7900. On the Bank of England's figures, the dollar's index rose to 0.4 to 64.9.

The D-Mark fell as the crisis in the Soviet Union came to the fore. The German unit has traditionally been the major currency to suffer when concern about the Soviet Union mounts. It fell to Y75.93-03 from Y76.08. However, the D-Mark remained steady inside the European Exchange Rate Mechanism.

Within the rest of the ERM, the peseta continued to strengthen. Yesterday's gains followed comments by Mr Mariano Rubio, governor of the Bank of Spain, who said Spanish inflation would fall again next month. On Monday, Spain's annual inflation fell to 5.7 per cent from 6.0 per cent the previous month. The D-Mark fell to Pta62.86 from Pta63.00.

The French franc remained firmly at the bottom of the ERM grid as speculation grew that there could soon be a ¼ point cut in French interest rates. The trigger for the latest interest rate talk was the September inflation report. At 2.6 per cent, France's annual inflation rate is at its lowest since the middle of 1988 and is 1.3 points below German inflation.

But the weakness of the Franc within the ERM is preventing any move on rates. The French franc declined against sterling but strengthened against the mark.

Sterling was lower following speculation that a newspaper will publish an opinion poll today that will put the opposition Labour party 8 points ahead of the governing Conservatives.

However, talk that sterling would join the narrower 2¼ per cent ERM bands provided support. Sterling closed lower at DM2.9125 from DM2.9175; at $1.7025 from $1.7165; at SFr2.5425 from SFr2.5500; Y221.50 from Y222.00; and at FFr9.9175 from FFr9.9375. Sterling's effective index fell 0.2 to 90.2.

£ IN NEW YORK

Oct. 15	Close	Previous Close
£ Spot	1.6990-1.7000	1.7010-1.7025
1 month	0.79-0.77cpm	0.81-0.80pm
3 months	2.12-2.09pm	2.09-2.07pm
12 months	7.18-7.10pm	7.20-7.10pm

Forward premiums and discounts apply to the US dollar

STERLING INDEX

	Oct. 15	Previous
8.30 am	90.3	90.4
9.00 am	90.3	90.4
10.00 am	90.3	90.4
11.00 am	90.3	90.4
Noon	90.3	90.4
1.00 pm	90.2	90.4
2.00 pm	90.2	90.4
3.00 pm	90.2	90.4
4.00 pm	90.2	90.4

CURRENCY MOVEMENTS

Oct. 15	Bank of England Index	Morgan** Guaranty Changes %
Sterling	90.2	N/A
U.S. Dollar	64.9	N/A
Canadian Dollar	106.8	N/A
Austrian Schilling	108.9	N/A
Belgian Franc	110.5	N/A
Danish Krone	108.2	N/A
D-Mark	116.7	N/A
Swiss Franc	109.1	N/A
Dutch Guilder	113.1	N/A
French Franc	101.8	N/A
Lira	98.2	N/A
Yen	143.9	N/A

Morgan Guaranty changes: average 1980-1982=100. Bank of England Index (Base Average 1985=100). **Rates are for Oct.14

CURRENCY RATES

[illegible]	[illegible]

OTHER CURRENCIES

Oct. 15	£	$
[illegible]	[illegible]	[illegible]
Iran	115.50*	67.00*
Korea(Sth)	1273.55 - 1294.05	745.60 - 754.60
Kuwait	0.49210 - 0.49260	0.28865 - 0.28875
Luxembourg	59.95 - 60.05	35.20 - 35.30
Malaysia	4.6760 - 4.6840	2.7460 - 2.7480
Mexico	5214.40 - 5220.90	3061.00 - 3063.00
N.Zealand	3.0015 - 3.0050	1.7615 - 1.7635
Saudi Ar.	6.3825 - 6.4595	3.7500 - 3.7510
Singapore	2.8830 - 2.8900	1.6940 - 1.6960
S.Af (Cm)	4.8165 - 4.8280	2.8365 - 2.8380
S.Af (Fn)	5.2755 - 5.3580	3.0960 - 3.1445
Taiwan	45.20 - 45.30	26.50 - 26.55
U.A.E.	6.2490 - 6.3260	3.6715 - 3.6735

* Selling rate.

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu Central Rates	Currency Amounts Against Ecu Oct 15	% Change from Central Rate	% Spread vs Weakest Currency	Divergence Indicator
Spanish Peseta	133.631	128.828	-3.59	4.96	62
Belgian Franc	42.4032	42.1684	-0.55	1.76	31
Italian Lira	1538.24	1531.45	-0.44	1.64	26
D-Mark	2.05586	2.04896	-0.34	1.53	27
Dutch Guilder	2.31643	2.30873	-0.33	1.53	21
Irish Punt	0.767417	0.766322	-0.14	1.34	10
Danish Krone	7.84195	7.89448	0.67	0.52	-26
Sterling	0.696904	0.703306	0.92	0.27	-18
French Franc	6.89509	6.97725	1.19	0.00	-61

Ecu central rates set by the European Commission. Currencies are in descending relative strength. Percentage changes are for Ecu: a positive change denotes a weak currency. Divergence shows the ratio between two spreads: the percentage difference between the actual market and Ecu central rates for a currency, and the maximum permitted percentage deviation of the currency's market rate from its Ecu central rate.
Adjustment calculated by Financial Times.

POUND SPOT - FORWARD AGAINST THE POUND

Oct. 15	Day's spread	Close	One month	% p.a.	Three months	% p.a.
US	1.6995 - 1.7130	1.7015 - 1.7025	0.79-0.77cpm	5.50	2.10-2.07pm	4.90
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DOLLAR SPOT - FORWARD AGAINST THE DOLLAR

Oct. 15	Day's spread	Close	One month	% p.a.	Three months	% p.a.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

EURO-CURRENCY INTEREST RATES

Oct. 15	Short term	7 Days notice	One Month	Three Months	Six Months	One Year
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Can. Dollar	9¼ - 8⅝	8⅝ - 8⅝	8¾ - 8⅝	8⅛ - 7⅞	7⅞ - 7⅞	7⅞ - 7¾
Dutch Guilder	9⅛ - 9⅛	9⅛ - 9⅛	9⅛ - 9⅛	9⅛ - 9⅛	9⅛ - 9⅛	9⅛ - 9⅛
Swiss Franc	8⅛ - 7⅞	8⅛ - 8	8⅛ - 8	8⅛ - 7⅞	8⅛ - 7⅞	8⅛ - 7⅞
D-Mark	9⅛ - 9⅛	9⅛ - 9⅛	9⅛ - 9⅛	9⅛ - 9⅛	9⅛ - 9⅛	9⅛ - 9⅛
French Franc	9⅛ - 9	9⅛ - 9	9⅛ - 9⅛	9⅜ - 9⅛	9⅜ - 9⅛	9⅜ - 9⅛
Italian Lira	12 - 10	11½ - 10½	11¼ - 10⅞	11⅛ - 10⅞	11½ - 11⅛	11⅝ - 11⅜
Belgian Franc	9¼ - 9⅛	9¼ - 9⅛	9¼ - 9⅛	9⅛ - 9¼	9⅛ - 9⅛	9⅛ - 9⅛
Yen	6⅞ - 6⅞	6⅞ - 6⅞	6⅞ - 6⅞	6⅝ - 6½	6⅜ - 6¼	6⅛ - 5⅞
Danish Krone	9⅝ - 9½	9⅝ - 9½	9⅝ - 9½	9⅝ - 9½	9⅝ - 9⅝	9⅝ - 9⅝
Asian $Sing	4⅞ - 3⅞	4⅛ - 4	4⅞ - 4⅞	4⅝ - 4¼	4⅞ - 4⅞	4⅞ - 4⅞

Long term Eurodollars: two years 6⅞-6⅞ per cent; three years 6⅞-6⅞ per cent; four years 7⅛-7⅞ per cent; five years 7⅞-7⅞ per cent nominal. Short term rates are call for US Dollars and Japanese Yen; others, two days' notice.

EXCHANGE CROSS RATES

Oct.15	£	$	DM	Yen	F Fr.	S Fr.	H Fl.	Lira	C$	B Fr.	ECU
£	1	1.702	2.912	221.5	9.917	2.542	3.282	2178	1.923	60.00	1.423
$	0.588	1	1.711	130.1	5.827	1.494	1.928	1280	1.130	35.25	0.836
DM	0.343	0.584	1	76.06	3.406	0.873	1.127	747.9	0.660	20.60	0.489
YEN	4.515	7.684	13.15	1000.	44.77	11.48	14.82	9833	8.682	270.9	6.424
F Fr.	1.008	1.716	2.936	223.4	10.	2.563	3.309	2196	1.939	60.50	1.435
S Fr.	0.393	0.670	1.146	87.14	3.901	1	1.291	856.8	0.756	23.60	0.560
H Fl.	0.305	0.519	0.887	67.49	3.022	0.775	1	663.6	0.586	18.28	0.434
Lira	0.459	0.781	1.337	101.7	4.553	1.167	1.507	1000.	0.883	27.55	0.653
C$	0.520	0.885	1.514	115.2	5.157	1.322	1.707	1133	1	31.20	0.740
B Fr.	1.667	2.837	4.853	369.2	16.53	4.237	5.470	3630	3.205	100.	2.372
ECU	0.703	1.196	2.046	155.7	6.969	1.786	2.306	1531	1.351	42.16	1

Yen per 1,000: French Fr. per 10: Lira per 1,000: Belgian Fr. per 100.

FINANCIAL FUTURES AND OPTIONS

[illegible]	[illegible]

OPTION ON LONG-TERM FRENCH BOND (MATIF)

Strike	Calls December	Calls March	Calls June	Puts December	Puts March	Puts June
105	-	-	-	0.08	0.35	-
106	1.59	2.00	-	0.19	0.59	-
107	0.87	1.39	1.90	0.46	0.95	-
108	0.38	0.92	-	0.94	-	-
Open Int	101,746	47,325	2,320	83,399	40,540	8,573

Estimated volume 68,137 Total Open Interest 283,903

BASE LENDING RATES

	%		%		%
Adam & Company	10.5	Credit Lyonnais	10.5	Midland Bank	10.5
Allied Trust Bank	10.5	Cyprus Popular Bk	10.5	Mount Banking	10.5
AIB Bank	10.5	Duncan Bank PLC	10.5	NatWestminster	10.5
● Henry Ansbacher	10.5	Duncan Lawrie	10.5	Northern Bank Ltd	10.5
B & C Merchant Bank	10.5	Equatorial Bank plc	10.5	Nykredit Mortgage Bank	11
Bank of Baroda	10.5	Exeter Bank Limited	11	Provincial Bank PLC	14
Banco Bilbao Vizcaya	10.5	Financial & Gen. Bank	11	Roxburghe Bank Ltd.	11.5
Bank of Cyprus	10.5	First National Bank Plc.	14	Royal Bk of Scotland	10.5
Bank of Ireland	10.5	● Robert Fleming & Co.	10.5	● Smith & Williamson Secs.	10.5
Bank of India	10.5	Robert Fraser & Ptnrs.	11	Standard Chartered	10.5
Bank of Scotland	10.5	Girobank	10.5	TSB	10.5
Banque Belge Ltd	10.5	● Guinness Mahon	10.5	Unibank plc	10.5
Barclays Bank	10.5	● Hambros Bank	10.5	● United Bk of Kuwait	10.5
Benchmark Bank	11	Hampshire Trust Plc	13.5	Unity Trust Bank Plc	10.5
Brit Bk of Mid East	10.5	Heritable & Gen Inv Bnk.	10.5	Western Trust	10.5
● Brown Shipley	10.5	● Hill Samuel	10.5	Westpac Bank Corp.	10.5
CL Bank Nederland	10.5	C. Hoare & Co.	10.5	Whiteaway Laidlaw	10.5
Citibank NA	10.5	Hongkong & Shanghai	10.5	Yorkshire Bank	10.5
City Merchants Bank	10.5	● Leopold Joseph & Sons	10.5		
Clydesdale Bank	10.5	Lloyds Bank	10.5		
Co-operative Bank	10.5	Meghraj Bank Ltd	10.5		
Coutts & Co	10.5	McDonnell Douglas Bnk.	10.5		

● Members of British Merchant Banking & Securities Houses Association.

MONEY MARKETS

London rates firm

THE UK money market remained tight yesterday with period rates pushing higher as dealers continued to believe there will be no early cut in interest rates.

The key three months interbank rate, which closely shadows the bank base rate, edged higher to 10$\frac{15}{32}$-$\frac{11}{32}$ per cent. Earlier in the month, three months money was drifting towards 10 per cent.

But last week's fall in sterling, which forced the Bank of England to intervene in the currency markets, has put back any talk of a cut in base rates this month.

UK clearing bank base lending rate 10.5 per cent from September 4, 1991

The futures market moved lower in busy trading. Speculation that an opinion poll in today's UK press would give the opposition Labour party an 8 point lead kept prices on the defensive.

The speculation about the opinion poll is symptomatic of a market which is becoming increasingly dominated by political uncertainty. A general election must be held by next July.

The December short sterling contract fell 2 points to 89.92, implying that it is discounting base rates of 10.08 per cent by the end of the year.

For the second day running, the Bank left the market short of liquidity, which pushed short-term money rates higher.

Initially, the Bank had forecast a smaller shortage than expected. The £900m shortage compared to forecasts of £1.5bn. Tax payments into the Treasury were less than market watchers had anticipated.

The shortage was revised to £900m and this compared with total assistance of £757m. During the morning, the Bank bought £120m of band 1 bank bills at 10⅜ per cent and £141m of band 2 bills at 10⅜ per cent.

During the afternoon, it purchased a further £401m of bills all at 10⅜ per cent. This included £100m of Treasury bills, £10m of local authority bills, and £276m bank bills. In band 2 it bought £15m bank bills. Finally, late assistance of £95m was provided.

In New York the Federal Reserve, as expected, did not operate in the money markets. Federal funds were little changed at just below 5¼ per cent, the Fed's presumed target.

Over the past two weeks, there has been widespread speculation that the Fed is about to ease monetary policy. However, dealers believe the Fed has been waiting for the Group of Seven meeting of finance ministers to end before moving on rates.

FT LONDON INTERBANK FIXING

(11.00 a.m. Oct. 15) 3 months US dollars		6 months US Dollars	
bid 5$\frac{3}{16}$	offer 5$\frac{5}{16}$	bid 5¼	offer 5⅜

The fixing rates are the arithmetic means rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted to the market by five reference banks at 11.00 a.m. each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

MONEY RATES

[illegible]	[illegible]

LONDON MONEY RATES

Oct. 15	Overnight	7 days notice	One Month	Three Months	Six Months	One Year
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MONEY MARKET FUNDS

Money Market Trust Funds

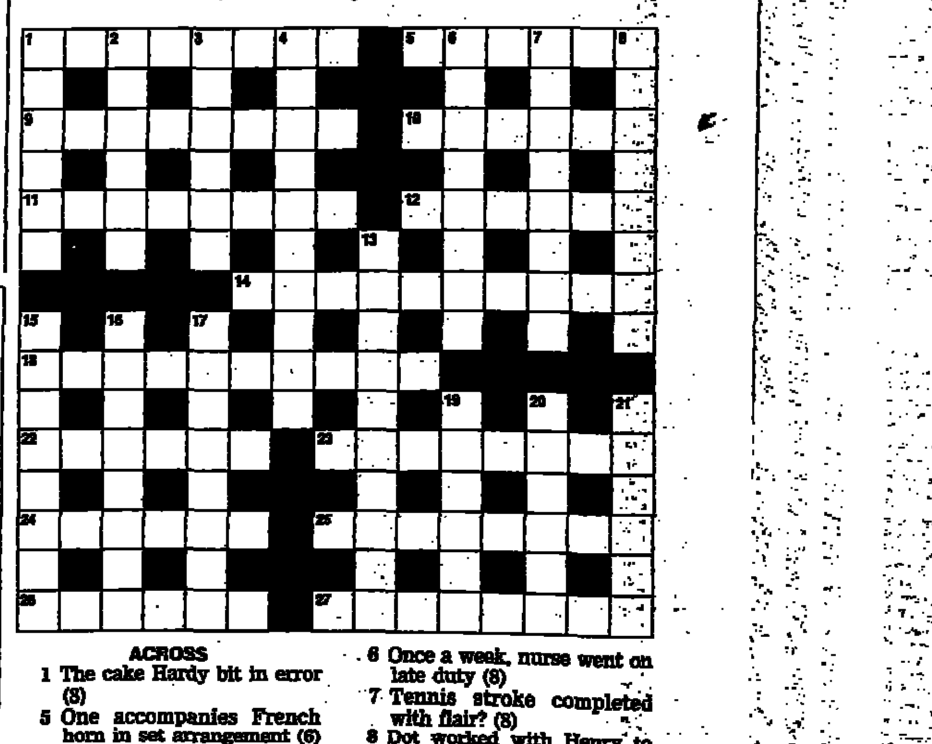
Money Market Bank Accounts

[illegible]	[illegible]

JOTTER PAD

CROSSWORD

No.7,673 Set by DINMUTZ



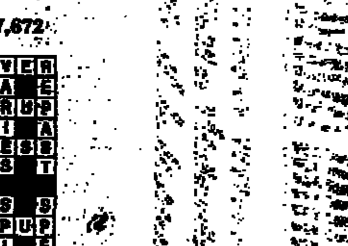
ACROSS

1 The cake Hardy bit in error (8)
5 One accompanies French horn in set arrangement (6)
9 Firm lose true order (8)
10 Cause to make winning England's openers expensive? (6)
11 Open flower in the Hebrides, for example (8)
12 One may make a splash on leaving the cabinet (6)
14 The dead centre of Stoke Poges? (10)
18 See aceptic visit agent in despair (10)
22 Close for a single shot! (6)
23 Chinese takeaway counters? (8)
24 Handwriting style of no upright characters (6)
25 Tonic for clergyman about teatime (8)
26 Bond's number on the square? (6)
27 Sticking these days, in this place, to New Testament (8)

DOWN

1 Nobleman approved of Hungarian composer (6)
2 Hastens to see early films (6)
3 His Excellency takes on plenty of slaves (6)
4 Cheeky aroma some common puddings possess? (10)
6 Once a week, nurse went on late duty (8)
7 Tennis stroke completed with flair? (8)
8 Dot worked with Henry to produce this sad ode (8)
13 Did Shaw's captain have his money tied up, so? (10)
15 Freudian-sounding keeper of records (8)
16 By the saw, in a blissful state? (8)
17 This mineral contains tin (instant E formula) (8)
19 Thinly spread butter and jam (6)
20 A church feature to rise to a great height (6)
21 Climbing a trail (6)

Solution to Puzzle No.7,672



WORLD STOCK MARKETS

AUSTRIA | FRANCE (continued) | GERMANY (continued) | NETHERLANDS | SWEDEN (continued) | BELGIUM/LUXEMBOURG | DENMARK | FINLAND | FRANCE | ITALY | NORWAY | SPAIN | SWITZERLAND | SOUTH AFRICA | AUSTRALIA | HONG KONG | MALAYSIA | SINGAPORE | JAPAN

[illegible]

CANADA

TORONTO

4.00 pm prices October 15

Quotations in cents unless marked $

[illegible]

MONTREAL

4.00 pm prices October 15

Sales	Stock	High	Low	Close	Chng
24100	Cascades	[illegible]	5¼	5¼	
100	DominTxt A	$8¼	8⅛	8⅛	−⅛
325300	MacmBlt	$10¼	10⅛	10¼	
53800	NatBk Can	$10⅞	10⅝	10⅞	
5600	Provigo x	$11¾	11½	11¾	+⅛
48000	Quebecor A	$18⅜	18⅝	18¾	+⅛
2300	Teleglobe	$9⅝	d9½	9½	−⅛
2300	Videotron	$12¼	12½	12⅝	

Total Sales 10,948,100 shares

INDICES

NEW YORK

DOW JONES	Oct 15	Oct 14	Oct 11	Oct 10	1991 HIGH	1991 LOW	Since compilation HIGH	Since compilation LOW
◆Industrials	3041.37	3019.45	2983.68	2976.52	3055.23 (28/8)	2470.30 (9/1)	3055.23 (28/8/91)	41.22 (2/7/32)
Home Bonds	97.15	97.10	97.03	97.06	97.30 (4/10)	91.30 (16/1)	97.30 (4/10/91)	54.99 (1/10/81)
Transport	1253.18	1240.28	1217.12	1206.46	1253.18 (15/10)	894.30 (7/1)	1532.01 (5/9/89)	12.32 (8/7/32)
Utilities	214.45	213.95	211.82	211.00	220.89 (16/4)	195.17 (10/7)	236.23 (2/1/90)	10.50 (8/4/32)

◆Day's High (a) (3026.39) Low (a) (2975.85)

STANDARD AND POOR'S

	Oct 15	Oct 14	Oct 11	Oct 10	1991 HIGH	1991 LOW	Since compilation HIGH	Since compilation LOW
Composite ‡	391.01	386.47	381.45	380.55	396.64 (28/8)	311.49 (9/1)	396.64 (28/8/91)	4.40 (1/6/32)
Industrials	462.40	456.78	450.58	449.59	472.01 (29/8)	364.90 (9/1)	472.01 (29/8/91)	3.62 (21/6/32)
Financial	31.84	31.18	30.77	30.57	32.24 (14/8)	21.96 (9/1)	35.24 (9/10/89)	8.64 (1/10/74)
NYSE Composite	214.90	212.57	210.07	209.55	217.17 (28/8)	170.97 (9/1)	217.17 (28/8/91)	4.46 (25/4/42)
Amex Mkt. Value	376.94	372.66	369.66	368.59	376.94 (15/10)	296.72 (14/1)	397.03 (10/10/89)	29.31 (9/12/72)
NASDAQ Composite	534.11	525.66	519.05	515.94	534.11 (15/10)	355.75 (14/1)	534.11 (15/10/91)	54.87 (31/10/72)

	Oct 11	Oct 4	Sep 27	year ago (approx.)
Dow Industrial Div. Yield	3.10	3.12	3.08	4.23

	Oct 9	Oct 2	Sep 25	year ago (approx.)
S & P Industrial div. yield	3.24	2.74	2.73	3.56
S & P Indl. P/E ratio	20.53	21.14	21.14	14.28

NEW YORK ACTIVE STOCKS

Tuesday	Stocks traded	Closing price	Change on day
Citicorp	4,158,700	12⅝	− 1
RJR Nabisco	3,395,200	10⅝	+ ⅛
West. Elect	3,219,100	18⅛	+ ⅜
IBM	3,027,500	104⅛	+ 2⅞
Am T & T	2,749,800	38⅝	+ ⅜
Amer Express	2,593,500	21⅛	+ ½
Waste Mgmnt	2,347,900	36⅛	+ 1⅛
Pepsico	1,995,800	29	....
Gen Elect	1,951,300	70	+ 2⅞
Archer Daniels	1,940,400	27⅞	+ 1⅝

TRADING ACTIVITY

† Volume Millions	Oct 15	Oct 14	Oct 11
New York SE	213.440	127.945	146.560
Amex	14.192	9.195	9.839
NASDAQ	(u)	117.084	145.013
NYSE			
Issues Traded	2,099	2,064	2,088
Rises	1,151	1,089	928
Falls	475	469	627
Unchanged	473	506	533
New Highs	172	89	68
New Lows	20	8	12

CANADA

TORONTO	Oct 15	Oct 14	Oct 11	Oct 10	1991 HIGH	1991 LOW
Metals & Minerals	2937.29	(c)	2872.64	2806.51	3299.99 (18/7)	2632.06 (9/1)
Composite	3416.68	(c)	3375.43	3345.08	3582.07 (7/6)	3161.95 (15/1)
MONTREAL Portfolio	1821.66	(c)	1798.78	1781.72	1903.86 (7/6)	1686.89 (9/1)

Base values of all indices are 100 except NYSE All Common − 50; Standard and Poor's − 10; and Toronto Composite and Metals − 1000. Toronto indices based 1975 and Montreal Portfolio 4/1/83. † Excluding bonds.‡ Industrial, plus Utilities, Financial and Transportation. (c) Closed. (u) Unavailable.

	Oct 15	Oct 14	Oct 11	Oct 10	1991 HIGH	1991 LOW
AUSTRALIA						
All Ordinaries (1/1/80)	1586.5	1563.8	1555.3	1556.1	1591.3 (7/8)	1204.5 (16/1)
All Mining (1/1/80)	634.2	624.9	616.3	616.8	707.2 (24/7)	561.6 (16/1)
AUSTRIA						
Credit Aktien (30/12/84)	413.85	416.99	429.56	432.44	534.81 (16/4)	390.84 (15/1)
BELGIUM						
BEL20 (1/1/91)	1105.53	1104.79	1109.58	1104.22	1212.15 (17/4)	917.59 (17/1)
DENMARK						
Copenhagen SE (3/1/83)	358.45	357.88	357.78	357.11	380.04 (2/8)	302.26 (8/1)
FINLAND						
HEX General (28/12/90)	848.6	854.0	853.9	851.6	1186.9 (8/4)	843.3 (2/10)
FRANCE						
CAC General (31/12/82)	499.07	497.47	490.75	488.95	497.62 (2/10)	394.88 (15/1)
CAC 40 (31/12/87)	1856.89	1835.98	1833.82	1843.64	1887.29 (1/10)	1425.26 (15/1)
GERMANY						
FAZ Aktien (31/12/58)	663.76	647.13	647.46	643.87	717.43 (17/6)	570.48 (15/1)
Commerzbank (1/12/53)	1836.20	1817.8	1820.8	1809.2	2035.2 (31/5)	1612.5 (15/1)
DAX (30/12/87)	1585.04	1571.04	1568.42	1567.95	1715.80 (11/6)	1311.82 (16/1)
HONG KONG						
Hang Seng Bank (31/7/64)	4033.75	4022.21	4017.98	4056.22	4093.41 (3/10)	2984.01 (16/1)
IRELAND						
ISEQ Overall (4/1/88)	1431.46	1422.10	1423.58	1416.81	1520.65 (15/3)	1114.86 (25/1)
ITALY						
Banca Com. Ital. (1972)	(u)	(u)	(u)	524.16	619.38 (3/6)	486.26 (29/1)
JAPAN						
Nikkei (16/5/49)	24307.65	23860.67	24157.72	(c)	27146.91 (18/3)	21456.76 (19/8)
Tokyo SE (Topix) (4/1/68)	1848.56	1835.59	1853.33	(c)	2028.85 (18/3)	1625.00 (17/1)
2nd Section (4/1/68)	2836.08	2847.23	2858.86	(c)	3423.45 (10/5)	2473.52 (24/1)
MALAYSIA						
KLSE Composite (4/4/86)	514.59	518.80	510.36	507.37	635.02 (29/5)	470.41 (16/1)
NETHERLANDS						
CBS Tll.Rtn.Gen.(End 1983)	280.6	276.9	274.8	273.8	284.8 (5/6)	221.4 (16/1)
CBS All Shr (End 1983)	197.3	194.8	193.3	192.5	203.1 (5/6)	162.3 (16/1)
NORWAY						
Oslo SE (Ind) (2/1/83)	704.30	710.48	726.96	732.03	793.53 (26/8)	610.45 (21/1)
PHILIPPINES						
Manila Comp (2/1/85)	1030.53	1009.15	978.81	968.07	1183.40 (29/5)	582.64 (10/1)
SINGAPORE						
SES All-Singapore (2/4/75)	376.36	377.00	372.21	367.82	422.43 (26/4)	315.07 (16/1)
SOUTH AFRICA						
JSE Gold (28/9/78)	1182.04	1192.0	1171.0	(c)	1469.0 (5/7)	971.0 (25/2)
JSE Industrial (28/9/78)	4049.04	4056.0	4052.0	(c)	4237.0 (10/9)	2829.0 (16/1)
SOUTH KOREA**						
Korea Comp Ex. (4/1/80)	700.18	703.81	708.30	715.41	763.10 (6/8)	590.57 (22/6)
SPAIN						
Madrid SE (30/12/85)	263.55	263.06	265.04	266.36	289.22 (18/3)	213.70 (14/1)
SWEDEN						
Affarsvariden Gen. (1/2/37)	965.20	986.9	999.9	999.7	1149.8 (11/7)	808.4 (8/1)
SWITZERLAND						
Swiss Bank Ind. (31/12/58)	744.6	742.7	742.8	740.2	769.2 (29/8)	590.4 (14/1)
SBC General (1/4/87)	609.7	609.0	609.4	607.5	638.0 (31/5)	487.1 (14/1)
TAIWAN**						
Weighted Price (30/6/66)	4568.61	4554.50	4813.20	(c)	6305.22 (9/5)	3316.26 (15/1)
THAILAND						
Bangkok SET (30/4/75)	(c)	(c)	639.08	644.60	908.13 (19/4)	582.48 (16/1)
WORLD						
M.S. Capital Intl.(1/1/70) ($)	516.4*	515.9	514.0	514.0P	529.2 (17/4)	439.1 (16/1)

**Saturday October 12: Taiwan Weighted Price: 4823.67. Korea Comp Ex. 701.99

*Calculated at 15.00 GMT.

ª Subject to official recalculation.

Base values of all indices are 100 except: BEL20, HEX General, ISEQ Overall and DAX − 1,000, JSE Gold − 255.7, JSE 26 Industrials − 264.3 and Australia All Ordinary and Mining − 500; (c) Closed. (u) Unavailable.

TOKYO - Most Active Stocks

Tuesday, 15 October, 1991

	Stocks Traded	Closing Prices	Change on day		Stocks Traded	Closing Prices	Change on day
Japan St Batt	7.0m	980	+8	Morinaga	2.9m	809	+38
Nissan Chemical	6.3m	1,010	+88	Penta-Ocean	2.8m	997	+9
Meiji Seika	6.3m	1,230	+70	Nippon Mining	2.7m	603	+9
Nippon Ch-Con	3.6m	864	+54	Hitachi Zosen	2.2m	706	+7
Kumagai Gumi	3.6m	868	+27	Cosmo Oil	2.1m	911	+9

Price data supplied by Telekurs.

4:00 pm prices October 15

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

1991 High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
16⅞	9¼	AAR Corp x	0.48	0.04	17	882	13⅛	12¾	13⅛	+⅛
18⅞	14½	A L Labs A	0.16	0.01	19	439	18⅛	17¾	17⅞	-¼
56¾	40⅞	AMP Inc	1.44	0.03	19	2434	49⅞	48	49¾	+2⅛
68⅞	44¼	AMR				115158	61⅞	60⅛	61½	+¾
2⅝	1	ARX			1	116	1½	1½	1½	+⅛
56	41½	ASA	3.50	0.07	13	388	47⅞	47	47⅞	+½
55⅞	39¼	Abbott Lab x	1.00	0.02	22	4853	55⅛	54½	55¼	+⅝
14⅝	9⅞	Abitibi Pr x	0.50	0.04	24	32	13	12⅞	13	+⅛
11⅝	10⅛	ACM Gvt In x	1.28	0.11		428	u11⅝	11½	11½	
9¾	8¾	ACM GvOpp x	1.01	0.10		110	u9¾	9⅝	9⅝	-⅛
9½	8¼	ACM Gvt Sp	1.07	0.11		402	u9½	9⅜	9⅜	
11	9⅞	ACM Gvt Sc	1.26	0.12		613	10⅞	10¾	10⅞	
9	7⅝	ACM Man x	1.01	0.11		583	u9	8⅞	8⅞	
12⅞	11½	ACM Mmgd x	1.38	0.10		154	12⅞	12⅝	12¾	+⅛
7½	4¾	Acme Cleve x	0.40	0.06	17	179	6½	6⅛	6½	+⅜
6	3⅞	Acme Elect			2	44	4¼	4⅛	4¼	
40	22¾	Acuson			23	1108	34½	34⅛	34⅜	+⅛
19⅛	14¼	Adams Expr	0.73	0.04	0	94	u19¼	19	19¼	+¼
20⅛	17½	Adobe12PI	2.40	0.12		6	19¾	19⅜	19⅝	-⅛
9¼	6⅝	Adobe Res			48	437	7½	7⅛	7¼	-¼
38⅛	16	Ad Micro				60	33¾	33¼	33⅜	+½
14¼	4⅝	Ad Micro P	3.00	0.27	18	1409	11¼	10⅞	11	-⅛
5¼	2¾	Advest Grp	0.16	0.04	67	155	4⅜	3⅞	4⅛	+⅝
49⅛	31⅞	Aetna Lf x	2.76	0.08		73786	35½	34½	35⅜	+¾
10⅝	6⅝	Ahli A	0.24	0.03	44	1258	8	7⅞	8	+¼
20⅞	12	Ahmanson	0.88	0.05	10	8370	17⅝	16⅞	17½	+1
16⅛	2⅞	Aileen Inc			16	394	16⅛	15⅞	16	+⅛
74⅛	51⅞	Air Pr Chm	1.56	0.02	16	625	70⅛	69½	70⅛	+1
30	16⅝	Airbne Frt	0.30	0.01	17	1938	25½	24¾	25½	+1¼

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NYSE COMPOSITE PRICES

Continued from previous page

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1991 High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
10¼	3⅝	Worldcorp				91630	9¼	8¾	9	+¼
66¼	48⅛	Wrigley x	1.00	0.02	20	117	62⅝	61⅞	62⅝	+¾
17	10¾	Wyle Labor x	0.28	0.02	10	714	12⅛	12	12	
19¾	14⅝	Wynns Int	0.60	0.04	12	59	16¾	16½	16½	−⅛

- X - Y - Z -

1991 High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
62¼	35¼	Xerox	3.00	0.05	10	1805	61¼	60⅞	61⅛	+¼
51½	43¼	Xerox4.125				15	50½	50¼	50¼	
23¾	14⅛	Xtra 1.94				6	u23¾	23¾	23¾	
27⅞	14¼	Xtra Corp	0.72	0.03	90	337	27⅛	26⅝	27⅛	+¼
26	21¾	Yankee Egy	1.60	0.06	12	83	u26⅛	25¼	25⅝	+½
1½	⅝	Zapata			2	297	11/16	⅝	⅝	−1/16
9⅞	5¼	ZenithElec			1	319	5½	5⅜	5⅜	−⅛
18½	12	Zenith Nat x	1.00	0.06	97	138	16½	15¾	16½	+¾
6⅞	4½	Zenix Inc	0.84	0.13		36	u6⅝	6¼	6⅜	
15⅛	10⅞	Zero Corp	0.40	0.03	15	290	13⅛	12⅞	13⅛	+¼
41⅜	29½	Zurn Ind	0.88	0.02	15	318	36⅝	35⅝	36½	+1
13½	10¼	Zweig Fund x	1.16	0.09		456	13	12¾	13	+¼
10⅜	8½	Zweig Total x	0.96	0.09		608	10¼	10⅛	10⅛	

Price data supplied by Telekurs.

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 percent or more has been paid, the year's high-only range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration

a-dividend also xtra(s). b-annual rate of dividend plus stock dividend. c-liquidating dividend. cld-called. d-new yearly low. e-dividend declared or paid in preceding 12 months. g-dividend in Canadian funds, subject to 15% non-residence tax. i-dividend declared after split-up or stock dividend. j-dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k-dividend declared or paid this year, an accumulative issue with dividends in arrears. n-new issue in the past 52 weeks. The high-low range begins with the start of trading. nd-next day delivery. P/E price-earnings ratio. r-dividend declared or paid in preceding 12 months, plus stock dividend. s-stock split. Dividends begin with date of split. sls-sales. t-dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date. u-new yearly high. v-trading halted. vi-in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd-distributed. wi-when issued. ww-with warrants. x-ex-dividend or ex-rights. xdis-ex-distribution. xw-without warrants. y-ex-dividend and sales in full. yld-yield. z-sales in full.

AMEX COMPOSITE PRICES

4:00 pm prices October 15

Stock	Div.	P/E	Sls 100s	High	Low	Close	Chng
Pegasus G		7	226	11⅞	11⅛	11⅞	
Perini		6	43	9¼	9	9	−⅛
Pet H&P	0.31	12	7	10⅝	10½	10⅝	+⅛
Phil LD	0.17	10	1391	25⅜	24⅞	25⅛	+¼
Pittway A x	1.10	10	68	24¼	24	24	−¼
Ply Gem	0.12	164	89	8¼	7⅞	8¼	+½
PMC x	0.68		2	8⅝	8⅝	8⅝	
PresidioA	0.10	2	150	3⅞	3¾	3¾	+⅛

NASDAQ NATIONAL MARKET

4:00 pm prices October 15

Stock	Div.	P/E	Sls 100s	High	Low	Last	Chng
XL Data		35	494	11⅝	11½	11⅝	+¼
Xoma Corp		8	3139	15¼	14	15	+¼
Yellow Fr	0.94	16	1349	30¼	29⅞	30⅛	+⅛
York Rsch		56	297	7	6½	6⅞	
Zoeller x	1.44	9	60	46	44½	45¾	+1¼

FINANCIAL TIMES Wednesday October 16 1991

AMERICA

Dow pushed higher after surge of program buying

Wall Street

A surge of futures-related program buying left share prices higher yesterday at the end of a session marked by a flood of third quarter corporate reports, *writes Patrick Harverson in New York.*

At the close the Dow Jones Industrial Average was up 21.92 at 3,041.37. The more broadly based Standard & Poor's 500 also ended firmer, up 4.54 at 391.01, while the Nasdaq composite of over-the-counter stocks jumped 8.44 to 534.10. Turnover on the NYSE was heavy at 215m shares.

For most of the day, share prices idled near their opening values, but took off mid-afternoon as computerised buy programs were triggered by sharp rises in the stock-index futures market. Technical manoeuvrings aside, the market's attention was focused on corporate America and its experiences during the third quarter. Leading the way was IBM, which had warned on several occasions of poor quarterly results. The final figure was bad but not much worse than expected, with the computer giant reporting an 85 per cent decline in third quarter net income to $172m. Although revenues were slightly less than predicted, IBM said that it would cut its workforce by 20,000 this year.

The cost-cutting measures, and the feeling that the worst may be over, helped the shares recover from early losses to end up $3 at $104¼ in early afternoon trading. The stock was helped by a recommendation from Oppenheimer analyst Ms Marianne Wolk, who raised her rating on IBM to "buy", citing reports of strong demand for its new high-end mainframe computers.

In contrast, Citicorp shares dropped $⅞ to $12⅞ after the country's biggest banking group stunned the market with a $885m third quarter loss, and the suspension of its dividend payment. There was better news elsewhere in the financial sector. Chemical Bank rose $1⅞ to $26 after the group reported a $131.6m profit in the third quarter, compared with a loss at the same stage last year, and Wells Fargo climbed $4⅛ to $71⅛ on news of $52m earnings, which included a $200m addition to provisions for loan losses.

Securities house stocks were in even better shape. Merrill Lynch rose $3¼ to $51⅞ after the company announced July to September profits of $160.2m, and PaineWebber put on $3⅞ at $28⅛ on news of record quarterly income of $38.3m.

Among other stocks to react to corporate earnings were: Pepsico, down $⅛ at $29 on news of a decline in third quarter profits and a charge to cover restructuring costs; American Home Products, up $4⅛ at $74 after the company reported third quarter net income of $1.22 a share, up from $1.01 a share a year ago; and Upjohn, which rose $1¼ to $43⅝ on better-than-expected profits of $140m.

Canada

TORONTO stocks rallied higher in moderating trading. Based on preliminary data, the composite index gained 41.25 points to end at 3,416.68, posting its best one-day run-up since March 5, when the index climbed 42.84 points.

Advancing issues topped decliners 300 to 235, as volume climbed to 22.4m shares compared with Friday's 21.4m. Trading value climbed to C$261.1m from C$235.3m on Friday. On Monday Canadian markets were closed for Thanksgiving.

Shares of National Bank of Canada dipped C$⅛ to C$10⅝. Moody's downgraded the bank's long-term deposit and debt ratings last Friday.

ASIA PACIFIC

Nikkei gains 1.9% despite suspension of Big Four

Tokyo

A RALLY in futures and a fall in bond yields took equities up by 1.9 per cent yesterday but volume remained low, reflecting the first day's business suspension of the Big Four securities houses, *writes Emiko Terazono in Tokyo.*

The Nikkei average closed 446.98 better at the day's high of 24,307.65, after opening at the intraday low of 23,916.03. Share prices stagnated in the first hour of trading as bearishness prevailed because of the business suspensions of Nomura, Daiwa, Nikko and Yamaichi.

Corporate stock trading business will be suspended for one week at Nomura and Daiwa, two weeks at Yamaichi and three weeks at Nikko. In addition, Nomura will suspend all retail stock brokerage transactions at 87 branches for up to six weeks.

Volume rose from 200m to 260m shares as some brokers tried to support activity with arbitrage-related trading. Gains led losses by 565 to 369, with 176 issues unchanged. The Topix index of all first section stocks rose 12.97 to 1,848.56 and, in London, the ISE/Nikkei 50 index firmed 1.65 to 1,403.15.

A spurt in the futures market encouraged index-linked buying. Traders suggested that some Japanese brokerages were trying to support the market by pushing up futures prices. An afternoon report that the Ministry of International Trade and Industry had called for a cut in the official discount rate also encouraged the equity market.

The Big Four's market share, usually around 30 per cent, fell to 14.5 per cent. Nomura ranked 16th, with 1.8 per cent, but Yamaichi, which was active in program buying, came in second with 5.1 per cent.

The ban failed to help foreign brokers, Morgan Stanley ranking ninth with 3 per cent.

A report that Meiji Milk Products had developed an Aids drug prompted a rally in biotechnology-related stocks and boosted general sentiment. "The market seems to have turned its back on positive fundamentals such as the strong yen and lower bond yields, and is preoccupied with thematic trading," said Mr Brian Tobin at S.G. Warburg.

Investors rushed to place buy orders in Meiji Milk, and the stock rose by its daily limit of Y100 to Y902 from its previous close. Other drug-related stocks were also popular, with Meiji Seika up Y70 at Y1,230 and Morinaga, another dairy producer which has developed a new cancer treatment, adding Y36 at Y809.

Export-oriented electricals, which had previously lost ground as a result of the stronger yen, rebounded on bargain hunting. NEC appreciated Y20 to Y1,270 and Hitachi improved Y10 to Y1,010.

The Tokyo Stock Exchange (TSE) announced yesterday that it had posted a Y2.7bn loss for the first six months to September. The TSE said revenue from securities transaction fees fell to Y5bn from Y9.9bn the previous year. It added that a rise in fees paid by member brokerage firms would be considered as a way to improve its financial position.

In Osaka, the OSE average rose 92.18 to 26,367.78 in volume of 24.7m shares. Selling overwhelmed buying in the morning, but individual buying in the afternoon supported prices.

Roundup

THE ANTIPODEAN markets rose in optimistic trading yesterday, but the rest of the Pacific Rim was sluggish.

AUSTRALIA continued to climb on hopes of lower interest rates and the overnight gain on Wall Street. The All Ordinaries inded added 22.7 or 1.5 per cent at 1,586.5, while the All Industrials index reached a 12-week high of 2,463.0, up 34.9. Turnover amounted to A$222m, against Monday's A$246m.

Among the winners, Westpac gained 9 cents to A$4.40, Brambles 60 cents to A$18.60 and News Corp 50 cents to A$11.40, the latter after rising overnight in the US.

NEW ZEALAND moved ahead 1.5 per cent, the NZSE-40 index closing 21.89 up at 1,447.88. Good news on inflation encouraged investors, and turnover picked up to NZ$24m from NZ$11m.

MANILA was again buoyed by demand for Philippine Long Distance Telephone shares, which put on 40 pesos to 650 pesos. The composite index gained 21.38 or 2.1 per cent to 1,030.53. Turnover grew to 177m pesos from 139m.

TAIWAN improved only modestly after Monday's 5.6 per cent drop, which followed the opposition party's demand for permanent independence from China. The weighted index rallied 14.11 to 4,568.61 in light turnover of T$12bn, down from T$25bn.

HONG KONG edged up in quiet trading ahead of today's holiday. The Hang Seng index rose 11.54 to 4,033.75 in turnover of HK$904m, after Monday's HK$848m.

SINGAPORE and KUALA LUMPUR both retreated on profit-taking. Singapore's Straits Times Industrial index slipped 4.99 to 1,370.04 in volume of 51m shares, down from 58m, while the Malaysian composite index slipped 4.21 to 514.59 in 32m share volume, down from 39m.

JAKARTA failed to lift itself out of its depression, the market index falling another 1.35 to 239.18 in volume of 3.25m shares. Banks were active and lower, and some illiquid stocks plunged as they caught up with the rest of the market.

BOMBAY recovered most of its early losses. The BSE index ended 5.24 down at 1,724.06.

Cautious mood restricts German volume

Antonia Sharpe explains the fall in activity on most European bourses in September

GERMANY was the main casualty in a generally weak September showing for the European equity turnover table, with the only rises provided by the UK and France.

According to the data provided by County NatWest, Germany suffered a 25 per cent drop in turnover last month, to DM80.38bn, its lowest level since March 1989. Mr James Cornish of County NatWest says the German market moved downwards during the month, with daily volume picking up as share prices moved lower. However, there was no great selling conviction, suggesting that there might be buyers waiting in the wings.

Mr Cornish adds, however, that international investors, who are generally underweight in German stocks, will remain cautious over the next few months, during which the government should make a decision on a tax on fixed-interest income and the wage claims of IG Metall, the metalworkers' union, are expected to be made clear.

The rise in volume in France and the UK, of 12.9 per cent and 4.6 per cent respectively, reflected expectations of an economic recovery and favourable prospects for inflation. In its outlook for the final quarter, Baring Securities notes that the UK has continued to perform strongly in spite of poor corporate results and political uncertainty. "Corporate activity has something to do with this, but also a growing awareness of the improving inflation outlook in the UK, which ranks as one of the best in Europe, was a contributory factor," the broker says.

Baring believes the widening gap between those countries which have inflation under control and those that do not will dictate the performance of their respective stock markets. In its "two-speed" Europe in the context of inflation, Baring places France, the UK and Switzerland on the positive side, and on the negative side, Germany, Spain and Italy.

A tight monetary policy by the Swiss National Bank in order to support the franc against the D-Mark and to combat inflation has severely depressed activity on the Swiss bourses. Swiss volume fell by 12.5 per cent to SFr9.10bn in September, just one third of the turnover of SFr26.8bn enjoyed in July 1989.

An analyst at a Swiss bank says that equity volume will improve only when interest rates fall. Domestic institutions have deserted the stock market, in favour of the high returns from fixed-income investments. The abolition of stamp duty on securities transactions, which is currently under consideration, could also be beneficial.

The other long-term sufferer is Italy, which has seen turnover fall to L6,428bn in September, down 16.7 per cent on the month and 76.3 per cent since August 1989, when turnover stood at L27,080bn. But Italy's problems also reflect the foreign investor's exasperation with the delay in necessary stock market reforms.

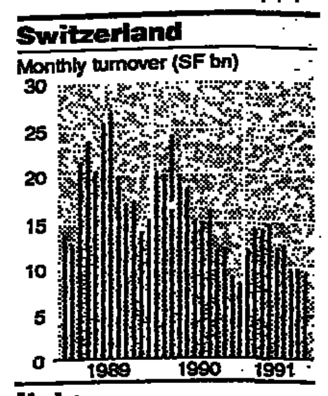
Italy's October volume figures will also make sad reading, as the bourse has been blocked since Friday by a strike by floor traders.

EUROPEAN EQUITIES TURNOVER
Monthly total in local currencies (bn)

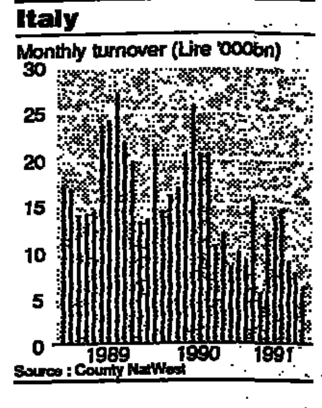
Bourse	June 1991	July 1991	Aug 1991	Sept 1991	US $bn
Belgium	40.69	34.55	32.12	30.67	0.90
France	115.82	101.88	90.82	102.57	18.11
Germany	142.40	110.00	106.68	80.38	48.33
Italy	14,744.00	8,733.60	7,712.00	6,428.00	5.17
Netherlands	10.41	10.75	11.74	9.98	5.32
Spain	636.12	630.86	585.00	476.00	4.53
Switzerland	12.50	9.42	10.40	9.10	6.28
UK	26.70	32.13	30.55	31.95	56.01

Volumes represent purchases and sales.
Italian data adjusted to include off-market trading. Some figures may be revised.
Source: County NatWest WoodMac.

Switzerland



Italy



Source : County NatWest

EUROPE

Overnight gains on Wall Street lift bourses

WALL STREET's overnight strength and stable opening yesterday provided the foundation for a solid European performance, although Scandinavia remained weak, *writes Our Markets Staff.*

PARIS was encouraged by a better-than-expected inflation figure for September, which revived hopes of an interest rate cut – possibly as early as tomorrow. The CAC 40 index gained 23.51 or 1.3 per cent to 1,856.89 in moderate turnover after Tuesday's light FFr1.5bn.

"This is a welcome improvement, but needs to be confirmed on Thursday with a rate cut," said Mr Thierry Defforey of Kleinwort Benson in Paris.

Accor gained FFr31 or 4.3 per cent to FFr750 in a technical rally, after announcing a 25 per cent fall in first-half net profits and forecasting a more favourable second half. The stock had fallen sharply last week when the hotels group postponed its interim report.

Havas also recovered after *its pre-results weakness, rising* FFr19.90 or 4.5 per cent to FFr466.90, while BSN gained FFr17 to FFr946 after last week's profit-taking and UAP, the insurer, rose FFr22 or 4.4 per cent to FFr519.

Against the trend, Eurotunnel slipped 10 centimes to close at the day's low of FFr45.30. It said that it was suing TransManche Link, the Channel tunnel builders.

FRANKFURT closed higher in spite of some weakness in chemicals. BASF said it was cutting its workers' bonuses again and the shares ended 30 pfg lower at DM243.70 against an intraday high of DM246.20. Hoechst fell DM1.30 to DM274.70 in sympathy.

However, there was general strength in banks, reflecting the recent improvement in the bond market, and retailers and construction stocks extended Monday's gains. Karstadt rose another DM6.80 to DM616.80 and Hochtief and Holzmann both added DM35, to DM1,200 and DM1,220.

After a 6.63 rise to 653.76 in *the FAZ index at midsession,* the DAX closed 14.00 higher at 1,585.04. German stock market turnover climbed from DM2.6bn to DM4.3bn.

Individual features included Schering, the pharmaceuticals group, which rose DM13.70 to DM786.50 on a buy order (reputedly foreign) in an illiquid market. In the same sector, Anzag was DM18 better at DM478; Lufthansa, recommended on airline industry recovery prospects, was DM7.90 higher at DM151.90; and VDO, in measuring and control technology, rose DM8 to DM207 on takeover speculation.

On the distaff side, Linotype slid below DM400, closing DM10.50 lower at DM389.50, for a loss of DM147.50 since its meeting with German analysts two weeks ago.

AMSTERDAM held on to its opening gains, on continued short-covering ahead of Friday's expiry of the October option contracts. The CBS Tendency index rose 1.0 to 90.5.

Among the winners were Elsevier, which rose Fl 1.30 to Fl 89.50, KLM, up Fl 1.20 at Fl 36.80, and Nutricia, which added Fl 2.10 to Fl 150.70. Royal Dutch jumped Fl 3 to Fl 156.80 following gains in New York.

BRUSSELS was flat in thin trading, as the Bel20 index added 0.74 to 1,105.53.

Wagons-Lits, the travel and tourism group, was suspended pending a statement. Mr Quentin Quarterman of Williams de Broë said that the move followed a protest by minority shareholders, who wanted to know the price at which a 6-7 per cent stake in the company recently changed hands.

He added that the backdrop to the protest was an expectation that Société Générale de Belgique, the majority shareholder, intended to sell its stake to Accor of France.

COPENHAGEN heard that water had flooded tunnels being dug under the Great Belt waterway by an international consortium, led by the construction group, Monberg & Thorsen. M & T fell DKr15 to DKr780.

STOCKHOLM fell further. The Affärsvärlden General index dropped 21.7 or 2.2 per cent to 965.2. SE-Banken A shares fell SKr3 to SKr50.5 ahead of its eight-month results tomorrow. In OSLO, the composite index fell 4.93 or 1.1 per cent to 455.27.

ZURICH saw a 5 per cent rise in nine-month sales at Ciba-Geigy, and the Crédit Suisse index closed 0.6 higher at 506.8. After hours, the accent stayed on pharmaceuticals with news of a SFr1.03bn capital raising operation at Roche which, said Mr Jonathan Spink at Williams de Broë, seemed chock-full of cash at the end of last year.

MILAN remained paralysed by the floor traders' strike but the market will open this morning from 8.45 to 10.00 local time to enable investors to close their accounts in the October trading cycle, which ends today.

FT-SE Eurotrack 100 - Oct 15

Hourly changes

Open	11 am	Noon	1 pm	2 pm	3 pm	4 pm	Close
1094.47	1094.54	1095.12	1094.94	1095.31	1095.01	1094.33	1095.49

Day's High 1095.83 Day's Low 1094.05

Oct 14	Oct 11	Oct 10	Oct 9	Oct 8
1088.51	1088.47	1086.32	1088.95	1093.53

Base value 1000 (26/10/90)

SOUTH AFRICA

JOHANNESBURG gold shares lost ground after Monday's gains, as bullion prices returned below $360. The all-gold index fell 10 to 1,182 while the industrial index slipped 7 to 4,049. The all-share index added 1 to 3,375.

FT-ACTUARIES WORLD INDICES

Jointly compiled by The Financial Times Limited, Goldman, Sachs & Co., and County NatWest/Wood Mackenzie in conjunction with the Institute of Actuaries and the Faculty of Actuaries

NATIONAL AND REGIONAL MARKETS — Figures in parentheses show number of lines of stock	TUESDAY OCTOBER 15 1991: US Dollar Index	Day's Change %	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	Local % chg on day	Gross Div. Yield	MONDAY OCTOBER 14 1991: US Dollar Index	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	DOLLAR INDEX: 1991 High	1991 Low	Year ago (approx)
Australia (69)	153.57	+1.3	133.78	126.39	136.65	127.94	+1.4	4.75	151.68	131.01	124.02	134.02	126.15	153.57	112.74	124.27
Austria (20)	162.53	−1.0	141.58	133.77	144.62	144.26	−0.3	1.98	164.14	141.78	134.21	145.03	144.75	222.37	154.82	198.86
Belgium (47)	128.03	−0.4	111.53	105.37	113.92	111.30	+0.5	5.33	128.53	111.02	105.08	113.56	110.78	151.20	118.04	135.81
Canada (114)	137.47	+1.4	119.75	113.13	122.31	112.48	+1.4	3.34	135.59	117.11	110.86	119.79	110.90	142.27	126.49	122.05
Denmark (37)	246.07	−1.1	214.35	202.52	218.95	220.72	−0.1	1.60	248.74	214.84	203.38	219.78	221.00	270.56	217.74	251.55
Finland (15)	84.42	−0.3	73.53	69.48	75.12	73.85	+0.7	3.30	84.65	73.11	69.21	74.79	73.36	125.15	84.05	102.03
France (109)	138.87	+0.3	120.96	114.28	123.55	126.94	+1.0	3.50	138.40	119.54	113.16	122.28	125.70	152.26	119.11	137.68
Germany (65)	105.56	+0.4	91.95	86.89	93.93	93.93	+1.1	2.40	105.17	90.84	86.00	92.92	92.92	125.35	94.15	115.07
Hong Kong (55)	166.78	+0.2	145.28	137.26	148.41	166.05	+0.3	4.39	166.51	143.82	136.14	147.13	165.54	169.98	119.62	119.63
Ireland (18)	156.29	+0.5	136.14	128.63	139.07	140.94	+1.3	3.55	155.45	134.26	127.10	137.35	139.11	182.46	132.88	156.75
Italy (77)	68.50	−0.9	59.67	56.38	60.95	65.49	+0.0	3.54	69.11	59.69	56.51	61.06	65.49	88.23	64.76	83.75
Japan (474)	140.50	+0.2	122.39	115.63	125.03	115.63	+0.8	0.73	140.28	121.17	114.70	123.96	114.70	146.97	118.23	131.18
Malaysia (68)	195.07	−1.1	169.92	160.53	173.57	206.37	−0.9	2.93	197.22	170.35	161.25	174.25	208.35	247.78	189.18	186.00
Mexico (16)	1301.86	+1.5	1134.04	1071.45	1158.41	4358.42	+1.5	1.21	1282.74	1107.94	1048.82	1133.39	4294.40	1301.86	534.45	509.88
Netherland (31)	139.20	+0.7	121.26	114.56	123.86	122.52	+1.4	4.40	138.26	119.42	113.05	122.17	120.84	145.73	125.70	133.70
New Zealand (14)	46.26	+1.7	40.29	38.07	41.16	43.29	+1.7	6.72	45.48	39.28	37.19	40.18	42.56	54.64	41.18	50.78
Norway (31)	184.61	−0.6	160.81	151.94	164.27	167.76	+0.2	1.68	185.80	160.48	151.92	164.17	167.39	223.24	178.58	232.98
Singapore (38)	190.53	−0.5	165.97	156.81	169.53	148.83	−0.3	2.39	191.42	165.33	156.51	169.13	149.21	208.25	151.63	150.35
South Africa (61)	247.88	+0.0	215.92	204.00	220.56	169.05	+0.0	2.87	247.86	214.09	202.66	219.00	169.04	258.85	173.00	153.42
Spain (53)	149.17	−0.4	129.94	122.77	132.73	121.65	+0.2	4.50	149.76	129.35	122.45	132.32	121.39	171.12	131.51	138.98
Sweden (25)	175.72	−2.4	153.07	144.63	156.36	162.20	−1.8	2.75	180.13	155.56	147.28	159.16	165.13	204.12	146.60	177.48
Switzerland (59)	92.00	−0.3	80.14	75.72	81.87	85.18	+0.2	2.27	92.27	79.70	75.45	81.54	84.98	100.67	82.17	92.28
United Kingdom (240)	175.64	−0.8	152.99	144.54	156.27	152.99	+0.1	4.85	177.00	152.88	144.71	156.38	152.88	187.44	156.27	163.14
USA (526)	158.89	+1.2	138.41	130.77	141.39	158.89	+1.2	3.06	156.98	135.58	128.36	138.70	156.98	161.02	125.95	120.38
Europe (827)	137.40	−0.4	119.69	113.09	122.27	121.50	+0.4	3.95	137.90	119.11	112.76	121.85	121.01	151.52	125.50	136.33
Nordic (106)	175.83	−1.6	153.16	144.71	156.45	153.84	−0.7	2.11	178.60	154.26	146.03	157.80	154.96	200.61	155.55	184.26
Pacific Basin (718)	140.92	+0.2	122.75	115.98	125.39	116.92	+0.8	1.07	140.65	121.48	115.01	124.28	116.00	145.92	117.86	130.19
Euro – Pacific (1545)	139.86	+0.0	121.83	115.10	124.44	119.56	+0.6	2.20	139.90	120.84	114.38	123.61	118.79	147.66	121.29	133.04
North America (640)	157.49	+1.2	137.19	129.63	140.16	155.74	+1.2	3.07	155.58	134.38	127.23	137.49	153.85	159.66	125.91	120.40
Europe Ex. UK (587)	114.81	+0.0	100.01	94.51	102.18	103.47	+0.7	3.26	114.86	99.21	93.93	101.51	102.80	129.80	103.56	119.59
Pacific Ex. Japan (244)	144.94	+0.5	126.26	119.31	128.98	127.58	+0.7	4.33	144.21	124.56	117.93	127.43	126.74	147.60	111.40	117.72
World Ex. US (1736)	141.63	+0.0	123.37	116.57	126.03	120.84	+0.7	2.24	141.59	122.30	115.78	125.11	120.04	148.16	122.32	133.09
World Ex. UK (2022)	143.59	+0.6	125.08	118.19	127.78	130.71	+1.0	2.28	142.74	123.28	116.71	126.13	129.48	145.77	120.06	124.20
World Ex. So. Af. (2201)	145.73	+0.5	126.95	119.95	129.68	132.62	+0.9	2.53	145.06	125.29	118.61	128.18	131.37	148.66	122.92	127.61
World Ex. Japan (1788)	150.92	+0.6	131.47	124.22	134.31	142.17	+0.9	3.42	150.01	129.57	122.66	132.56	140.92	152.85	126.69	127.10
The World Index (2262)	146.40	+0.5	127.52	120.49	130.27	132.83	+0.9	2.54	145.73	125.87	119.16	128.77	131.69	149.01	123.28	127.66

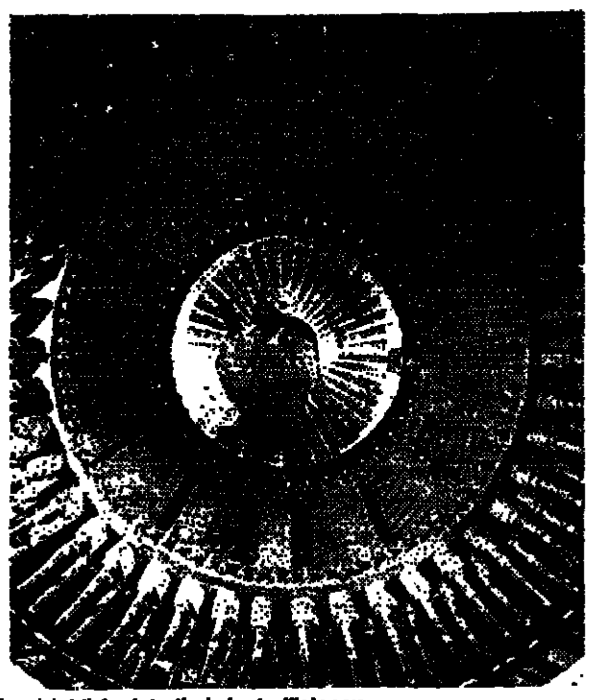
Italian prices were unavailable October 15 owing to industrial action at the Milan Bourse.

FINANCIAL TIMES SURVEY

ENERGY EFFICIENCY

SECTION III Wednesday October 16 1991

The Iraqis' deliberate torching of Kuwait's oil fields, ablaze for the past nine months, made a mockery of efforts to cleanse the atmosphere and use fuel more responsibly. But these twin objectives still command significant international attention, writes **Deborah Hargreaves**



As Kuwait's oilfields (above) continue to blacken the skies, western power plants, like Britain's Drax station (right) look to their fuel efficiency

In the fires of adversity

THE WESTERN world's drive for energy efficiency was dealt a cruel blow earlier this year when Saddam Hussein ignited more than 700 oil wells on his retreat from Kuwait. The environmental catastrophe caused by this so-called "scorched earth" policy, whereby more than 1m barrels of oil a day have been going up in smoke in the past nine months, has dwarfed the effect of conservation efforts by major energy using countries.

At the same time, oil prices have returned to moderate levels following steep jumps at the outset of the Gulf crisis a year ago. A crisis-management plan put in place by the International Energy Agency, the West's oil watchdog, just before the Gulf war proved largely unnecessary and, while some oil stocks were sold in a bid to stabilise prices, other conservation measures aimed at reducing consumption were never implemented.

High energy prices concentrate the minds of consuming nations and speed up the introduction of energy efficiency measures. "When energy prices are low, the economic case for energy efficiency is less," said Mr Colin Myerscough, director of the UK government's energy efficiency office. "The momentum tended to drop off after the oil price collapse in 1986, but now it is picking up again."

The focus on the environmental debate and strong public concern about global warming have given another spur to the energy efficiency lobby. Energy efficiency has increasingly found its way on to the agendas of political parties of all persuasions and while it is still not given a priority in the public mind, its profile is rising.

The European Commission's decision to press ahead with its controversial proposal for an energy tax equal to $10 per barrel of oil by the year 2000 will be at the centre of the European debate on energy efficiency for many months to come. The proposal which calls for a phased carbon tax starting at $3 per barrel in 1993 comes after two years of heated argument and faces deep opposition from EC industrialists.

However, the Commission argues that the tax is crucial if the community is to reach its target of stabilising carbon dioxide emissions within 10 years. If the EC were to continue business as usual, emissions would leap by 17 per cent in the same period. In addition, the EC has acted to grasp the initiative in a prolonged environmental debate that risked the introduction of unilateral energy taxes by countries such as Germany, with powerful environmental lobbies.

Another element of the carbon tax proposal is the importance of energy security for Europe as indigenous oil and gas supplies run into decline. European gas production, for example, looks like remaining steady in the next 10 years – due to peak at 160bn cubic meters per year before the year 2000 compared with current output of 150bn cubic metres a year. But EC gas demand is forecast to rise by over 100bn cubic metres a year to 340bn to 350bn cubic metres a year by 2000.

A growing supply gap would make much of Europe dependent on imports from the world's major gas producers: Algeria, Iran and the USSR, all potentially unstable parts of the world. These countries could be supplying 55 per cent of European demand by 2000 as opposed to 35 per cent now. In addition, oil production from countries outside the Organisation of Petroleum Exporting Countries (Opec) is declining, which could increase that organisation's sway over world oil politics again. The USSR is also likely to play a growing role in world oil trade in the next 10 years.

But advocates of energy conservation have long argued that raising prices alone is not sufficient to encourage energy-saving in the long term. Publicity is also needed, as well as incentives such as tax breaks for conservation measures, they claim.

The EC's SAVE programme is a move to introduce higher energy efficiency regulations for new homes and to improve the efficiency of products such as gas boilers.

Indeed, the introduction of more rigorous building regulations, for example, could make a significant contribution to energy-saving. Relatively simple measures such as the installation of more loft insulation and draughtproofing can cut emissions of carbon dioxide quite considerably.

The National Home Energy Rating estimates that if everyone in the UK were to move their home up one notch on the rating scale of 1 to 10, emissions could be cut by four per cent. However, individuals are looking for swift paybacks on investment in energy efficiency – some even in months – and many homeowners would rather spend their money on a new kitchen.

Industry can be the same, since expenditure on energy may be only a small part of a business's outgoings. Large industrial users of energy such as steel or aluminium producers have made great gains in cutting their energy use, but they have had a strong cash incentive to do so.

According to a report by the International Energy Agency, the energy intensity – measured as energy consumption as a ratio to Gross Domestic Product – of major US manufacturing plant declined by 25 per cent between 1980 and 1985. But smaller companies where energy costs are lower may set other priorities.

However, many energy contract managers report that, while the recession has cut some investment in energy efficiency, it has often prompted companies to look at conservation measures since they are keen to take every cost-cutting step they can.

As Europe struggles towards an unpopular carbon tax, the world's largest users of energy – the US and the USSR – are moving much more slowly on cutting their own consumption and for vastly different reasons. The US guzzles energy at a phenomenal rate and an energy tax, however small, would be politically unthinkable.

The US stands out among western nations as still resistant to set a target for committing itself to cut carbon dioxide emissions by a specific date. Simply to persuade the US to bring its energy efficiency in line with that of the EC and Japan would provide a substantial cut in global emissions of carbon dioxide.

In the USSR, the picture is rather different: the nation ranks second after the US in the league table of energy consumption, but it produces far less wealth. The USSR and, to a lesser extent, Eastern Europe wastes energy at a rapid rate chiefly because of poor maintenance, poor equipment and inefficient management.

Eastern Europe and the USSR waste about a third of their energy consumption – some 250m tonnes of oil equivalent – a year. In an effort to help these countries start energy-saving programmes, the United Nations has set up Energy Efficiency 2000 – a scheme that helps make western energy efficient technology available to the east.

The Soviet oil industry alone is estimated to waste at least 20 per cent of oil produced through pipe leakages and inadequate maintenance of equipment. At the same time, the nation's huge gas grid is leaking more gas than is produced in the UK almost every day. Much of the country's steel industry still uses outdated open hearth furnaces which use twice as much energy as electric arc furnaces common elsewhere in Europe for 30 years.

Mr Frederic Romig who runs the UN's Energy Efficiency 2000 programme says he is discussing the creation of energy-efficiency enterprise zones in the USSR. But, in spite of a strong environmental lobby in the US, there is still not much political will to limit energy use – particularly in the emotive issue of petrol taxes. If Europe takes the lead in the introduction of a carbon tax, Japan could not be far behind, but it is fanciful to expect the US to do more than pay lip service to these sort of environmental concerns until circumstances change greatly.

ENERGY EFFICIENCY 2

Neil Weinberg examines Japan's bid to cut reliance on imports

From nuclear power to fuel cells and solar energy

JAPAN is pressing ahead vigorously with new energy technologies to ease its rapidly rising demand for electric power and its heavy dependence on imported fuels.

At the forefront of its research and development efforts are the New Energy and Industrial Technology Development Organisation (NEDO), an affiliate of the Ministry of International Trade and Industry (MITI), regional electricity and gas utilities and electric equipment makers.

The contribution of new energy sources to total energy output will increase more than five-fold from the equivalent of 6.4m kiloliters of crude oil in 1989 to 34.6m kl in 2010, according to a MITI forecast. That will boost their portion of total energy output from 1.3 per cent to 5.3 per cent over the same period, the ministry says.

Fuel cells, solar power and cogeneration systems hold the most commercial promise in the near term, and output started to pick up over the past few years though still a small fraction of commercial needs. Research is also underway on coal gasification, liquefied coal oil, ceramic turbines, wind and wave power, superconductivity, alcohol-based fuels and other technologies.

Fuel cells, which generate electricity from a chemical reaction between the hydrogen in their energy source and atmospheric oxygen, are expected to contribute the most to new capacity and are particularly advantageous in crowded urban areas because they are compact and put out little vibration or pollution.

Five of the nation's nine electric utilities, plus the Tokyo and Osaka gas companies, electric machinery makers and MITI's Agency of Natural Resources and Energy (ANRE), are working on fuel cells, making Japan's the largest such effort.

Tokyo Electric Power (Tepco) in April generated 11,000 kw with a phosphoric acid fuel cell at its Chiba Prefecture test facility. Toshiba, Fuji Electric, Hitachi and other electric equipment makers are commercialising 50-200 kw units for hospitals, hotels, restaurants and other facilities.

Toshiba, which is cooperating with United Technologies of the US, last year opened the world's first factory dedicated solely to fuel cell production and is aiming to produce 10,000 kw units.

MITI is urging development of fuel cells with 1.05m kw capacities by the year 2000, when Toshiba expects the market's value to reach Y60bn.

Cogeneration is another leading alternative energy technology in which natural gas is the favoured fuel. Such systems are designed to boost energy usage efficiency ratios from the 35-40 per cent typical at conventional power plants to 70-80 per cent by capturing and re-using energy from exhaust heat or cooled water.

The first cogeneration systems were installed in 1983, and in the four years through 1990 installed capacity increased by 140,000-175,000 kw annually. Nearly three-quarters is fitted in factories, with the remainder spread among offices and other facilities. ANRE has also outlined plans to use waste heat from subways, garbage incinerators and electrical substations.

In spite of their research efforts, electric utilities have been charged with foot dragging on conservation for fear of losing customers

NEDO and Kansai Electric Power are aiming rapidly to commercialise solar power over the next decade as well. Research is underway at Kansai Electric's Rokko Test Center for Advanced Energy Systems on several solar technologies, including a 2 kw photovoltaic unit for home use.

"Cutting solar battery costs is the biggest problem," says Mr Akira Tanaka, manager of NEDO's solar energy department. Limiting the space needed for solar cells and matching demand with the availability of sunshine are other challenges, he says.

Builders and manufacturers are also seeking to cash in on new energy technologies. Misawa Homes, a leading builder, is aiming to cut power consumption from external sources in Japan's flimsy houses by as much as 90 per cent through solar generation and improved insulation.

This year Misawa is marketing a "Zero Energy Home" which will derive electricity for heating, air conditioning and hot water from solar cells. The first such system to be commercialised, it adds about Y5m to the cost of a home and requires more space for solar cells than is generally available. Sanyo Electric and a Sharp Corp-Kansai Electric team are also developing solar-powered air conditioners for sale within a few years.

The major hurdle in bringing these and the other most promising new energy products to market is financial rather than technological. Solar systems cost Y1m per kw to instal and Y71 per kw to operate and fuel cells Y1.5m and Y35-Y46 respectively, according to ANRE.

Those figures are several times higher than the Y19 per kw to instal and Y11 per kw to operate an oil-powered plant or Y31 and Y9 per kw cost of nuclear-generated electricity.

Mass production will cut unit costs for most systems rapidly, but to meet MITI's schedule for adopting new technologies tax or other incentives will be needed, industry sources say.

"Unless there are some legal changes we will not be able to achieve the forecasted rates of new energy use," says Mr Hideo Kaneko, a manager in the New Energy Foundation's new energy promotion department.

The foundation's executive managing director, Mr Koichi Yamanashi, points to Denmark, where wind-powered generating capacity mushroomed over the past decade because of hefty incentives to help overcome high start-up costs. The country is now also a technological leader in the field, he adds.

Japan's alternative energy advocates also praise policies introduced in the US, where national and state laws have given a strong boost to wind, solar and other clean generating methods before they are commercially competitive. No such programmes exist in Japan, says Mr Yamanashi.

ANRE recently took a first-step toward offering new energy sources the financial support needed for fast commercialisation by seeking Y1.5bn in fiscal 1992 for fuel and solar cell field tests.

Not surprisingly, oil companies and other fossil fuel suppliers have reacted negatively to such initiatives. But Japan's electric power companies have also faced charges of foot dragging, despite their research efforts, over fears of developing technologies that will lose them customers.

More significantly, they are focusing on proven rather than new technologies for the daunting task of keeping up with electricity demand that is growing by the equivalent of one large nuclear reactor's output annually. That, and the desire to cut imported energy dependence from a worrisome rate of 80 per cent, has prompted Japan to embark on the world's most ambitious nuclear power expansion programme.

MITI is hoping by 2010 to double the number of reactors in service and their contribution to electricity output to 16.9 per cent while tripling total capacity.

Critics say enough new sites simply do not exist. Such concerns are helping support nuclear R&D, including work on advanced boiling-water and pressurised-water reactors. Two large boiling-water reactors scheduled to come on line in 1996 and 1997 will each have hefty capacities of 1,356 mw, according to Tepco.

The government and electric industry are also pressing ahead with fast-breeder development, although the complexity, cost and risks put a halt to such work in the US a decade ago.

Bicycles on the banks of Amsterdam's canals: clues to the character of a careful nation which values its energy

Careful Holland held up as example to 'sloppy' Britain

Go Dutch and save money

GOING Dutch has always been a way of saving money. And a new report published to-day suggests that following the Dutch government's example could be an effective way of saving energy.

Entitled *Lessons From The Netherlands*, the study provides details of the many initiatives implemented over the past year by the Dutch government, together with their electric and gas industries. It contrasts these with the far more laid back approach in Britain.

In 1991, the Dutch government more than doubled expenditure on energy conservation and renewable sources of energy. The total budget is now £203m, of which approximately £145m will be spent on energy conservation. Last year, the total budget was just £93m.

On a per capita basis, the Dutch government – currently holding the Presidency of the European Community – is spending £9.60 this year on energy conservation, as opposed to £0.75 per capita by the UK Government. Effectively this means that in the Netherlands there is proportionately some 14 times as much being spent to promote energy saving by central government.

The primary motivation is environmental. The Netherlands has one of the most ambitious targets in Europe for the reduction of anticipated growth in carbon dioxide, the main contributor to global warming. Its target is to stabilise emissions at 1990 levels by the year 1995 – a full decade of that set by Britain. This will be followed by further reductions in emissions beyond that date.

Like many other developed countries, the Netherlands initially made great strides in improving energy efficiency. Between 1973 and 1985, the ministry of economic affairs estimates that the annual energy efficiency improvement rate was a compound 2 per cent per annum. However, as in many other countries, the drop in fuel prices in the mid-1980s prompted a slowing down of the drive for energy conservation. In recent years, the improvement rate has been between 0.5 and 1 per cent only.

The key element of the new strategy is the involvement of the utilities, which have a statutory responsibility to promote efficient energy consumption – as in the UK following electricity privatisation, power distribution is separated from generation.

Last February, a joint publication set out the first integrated environment action plan of the energy distribution sector. As well as the main strategic plan, the document integrates some 52 localised plans accounting for some 98 per cent of current energy sales.

The plan, known as MAP, focuses on creating savings in three areas: households, industry and government, as well as the energy distribution sector itself. Current forecasts of investment levels during the decade are around £400m per annum (£4 bn in toto), with financial incentives covering between £1 and £1.4 bn of expenditure.

Today's new report explores the different ways in which the utilities fund advice programmes and subsidise loan installations for their customers. It also details how utilities can recover their outlay by passing costs through to customers via tariff adjustments.

The key element of the strategy is the use of subsidies to stimulate consumer investment in energy saving measures. These subsidies are provided by the Government and through the distribution companies themselves, using funds raised for the purpose by a levy on energy consumption set at between 0.5 and 2 per cent.

By offering subsidies of between 10 and 30 per cent on energy saving investments, MAP uses the multiplier effect to produce customer investments two to three times the original figure. In this way, additional investment in energy efficiency is leveraged.

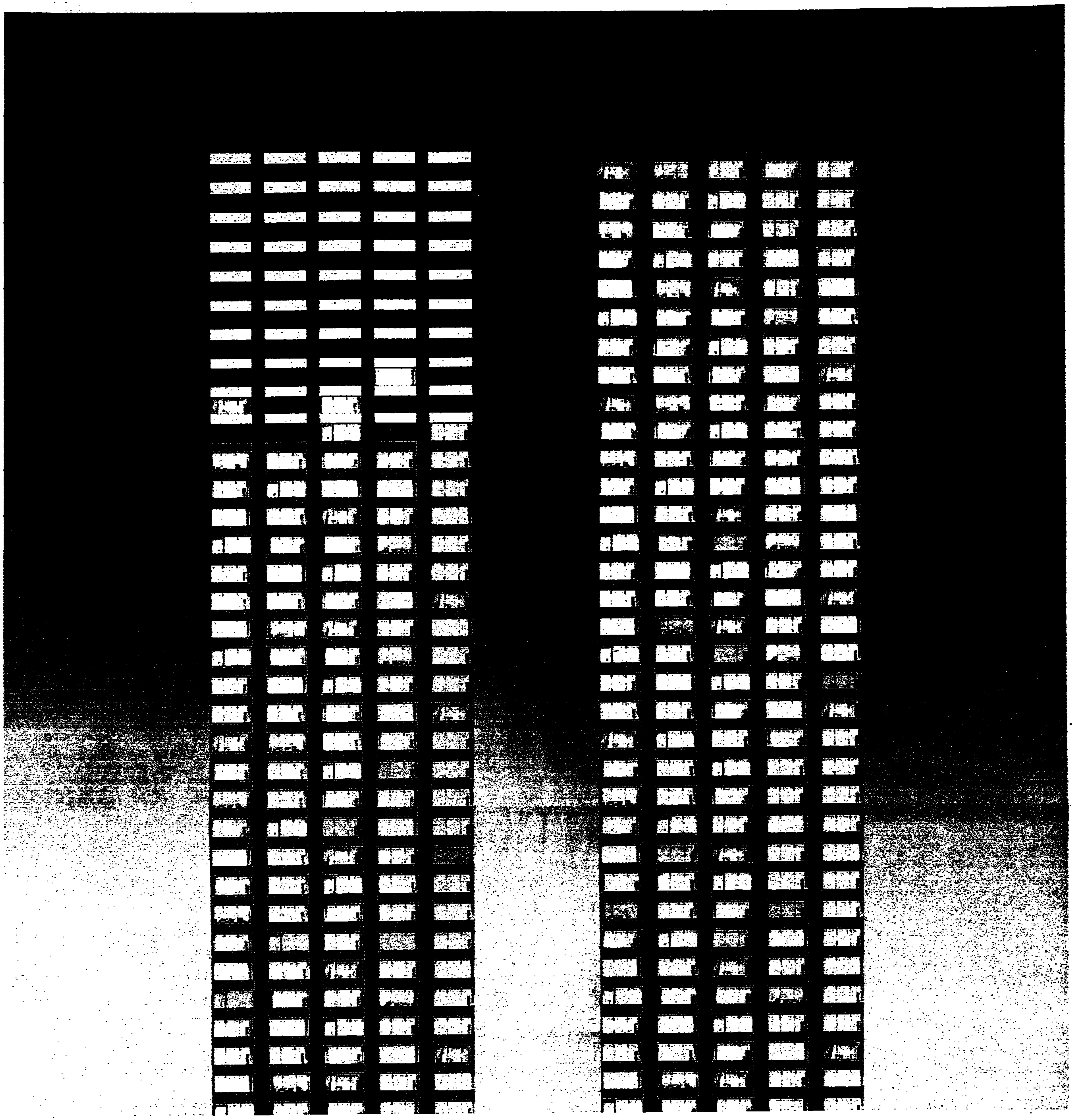
The report looks at how consumers are persuaded to upgrade domestic boilers. This year 70 per cent of boilers installed will be the ultra-efficient gas-condensing boilers, operating to 90 per cent efficiency standards.

This has largely been achieved by providing a grant towards the capital cost differential between these and conventional boilers.

Other subsidy schemes are still at trial stage. In the domestic lighting field, the cost of a pack of four high efficiency compact fluorescent lightbulbs is subsidised by 15 per cent, via a heavily promoted coupon discount scheme. Similarly insulation grants of up to 30 per cent are offered, with the proviso that registered professional installers are used.

The authors of today's new report set about reactivating their energy conservation market. In their conclusions, they emphasise the key roles played by gas and electricity utilities together with central government, in providing financial resources to encourage consumers to invest in energy saving measures.

Lessons From the Netherlands, Association for the Conservation of Energy, 9 Sherlock Mews, London W1M 3RH, price £15.



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ENERGY EFFICIENCY 4

Karen Zagor on a reappraisal of the US energy performance

Gas-guzzlers are also human

THE US is popularly regarded as the most wasteful nation on earth, and the least efficient country in the west. Using the traditional yardstick for measuring energy intensity – a ratio of energy to GDP – the US typically uses about 60 per cent more energy than Europe.

This assumption is somewhat misleading, according to Mr Lee Shipper, staff senior scientist at Lawrence Berkeley Laboratory. His ideas are set out in a forthcoming book, *Energy Efficiency and Human Activity*, written jointly with Mr Steve Meyers.

Using energy to GNP as a gauge of efficiency, Shipper says, ignores many variables such as climate, the structure of manufacturing, climate and average distances travelled which can vary wildly from country to country.

Energy consumption by the wealthier industrial nations has fallen dramatically since the early 1970s, largely as a result of the 1973 OPEC oil embargo which inflated oil prices. According Shipper and Meyers, between 1972 and 1985 these countries cut their energy use through greater efficiency by nearly 16m barrels a day of oil, saving about 30 per cent. In turn, these savings helped push down world oil prices.

Looking at residential, services, manufacturing, freight and passenger transportation sectors in the US, energy consumption declined by an average 23 per cent between 1973 and 1987, taking the level and structure of sector activity into account.

The US has made great strides in improving its efficiency since the 1970s, particularly in air travel, home heating and fuel use in manufacturing.

In the area of automobile fuel, for example, in the early 1970s, US new car fleets averaged close to 18 litres per 100 kilometres, about twice the level of France. By 1988, US new car fleets were using less than 9 litres per kilometer. Although this is a considerable improvement, it is still well above the roughly 6 litres per kilometer in France.

Although it has been argued that fuel costs do not have a great impact on the efficiency of automobiles, Mr Shipper disagrees. "The price of fuel does have an impact. We pay about $1.10 a gallon while Europeans pay between $3 to $5." And American cars are still significantly less energy efficient than European cars.

Tougher regulations are often the impetus for increased efficiency. The combined forces of regulatory changes and higher costs to build new plants has prompted a number of US utilities to take measures to encourage consumers to use less energy.

About 19 US states now allow utilities to earn a return for their investments in conservation programmes such as energy audits. New England Electric System, for example earned a 12 per cent return or about $8.3bn on its conservation programmes. Lawrence Berkeley Laboratory estimates that energy efficiency in buildings can be doubled in the next 20 years.

In the area of refrigeration, new standards will be in place by 1993 to reduce energy use by between 20-40 per cent. By 1995, similar rules will be extended to washers, dryers and other appliances.

A number of simple steps in new housing, such as better insulation, double-glazed windows and more efficient light bulbs which produce less heat, are also raising domestic energy efficiency.

In spite of the improvements, US cars, homes, appliances and services buildings still use 20-30 per cent more energy per unit of activity than in other countries. "Thus while improvements in the US have kept pace with improvements elsewhere, and even narrowed the gap considerably for space heating and driving, significant differences between energy and efficiency in the US and other countries still exist, albeit smaller differences than when looking at energy-GDP ratios."

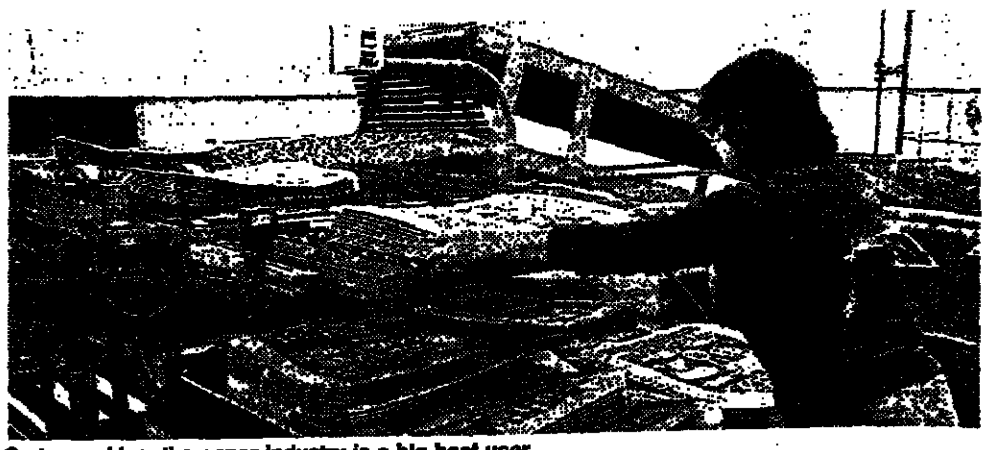
The US is no more wasteful than many of its European counterparts in terms of manufacturing, according to figures from Shipper and Meyers. To compare manufacturing energy intensity they eliminated a number of variables to show how much energy per dollar each country would use if they all produced the same mixture of goods.

While the US uses significantly more energy per dollar than France and Japan, it uses roughly the same amount as the UK and Denmark. Norway and Sweden stand out as the least efficient European nations when it comes to manufacturing, but this is because both countries produce a large amount of paper and pulp, which distorts their energy use.

If the calculations for Sweden and Norway were corrected to eliminate these special factors, their energy use per dollar would be roughly on par with the US.

"In the efficiency competition there are sacred cows in every countries," said Mr Shipper. There are no speed limits in Germany. US home owners are allowed tax deductions for mortgages, which encourages larger homes."

Furthermore, the pace of increased efficiency in the US has started to slow. Shipper and Meyers note that "a recent slowdown in the improvement of US energy efficiency has manifested itself in almost every sector except manufacturing. This slowdown represents a market plateau, not the confrontation with thermodynamic or technological limits. Public policies could restore some of the interest in raising the efficiency of energy use."



Carton making: the paper industry is a big heat user

Finland has a need for efficient solutions

A victim of geography and fuel poverty

UNLIKE Iceland, Norway and Sweden, Finland is poor in indigenous fuel resources. Indigenous fuels only accounted for 28 per cent of Finland's energy consumption in 1990 which totalled 29.83 m tonnes of oil equivalent (mtoe). The country has little choice, therefore, but to implement measures which would enhance energy efficiency.

Finland's distance from its main western European markets is another factor why it has to produce electricity efficiently and at competitive prices.

This is one of the key successes of Finland's energy intensive paper and pulp industry, which accounted for around 40 per cent of the country's total export earnings, and consumed around 30 per cent of Finland's 62.47 terawatt hours (twh) of electricity in 1990.

According to Mr Tuomo Kukko, an official working for Imatran Voima (IVO), the state-owned utility group, Finland became sensitive about energy conservation towards the beginning of the century and took active measures during the 1930s.

"As elsewhere, the first energy crisis of 1973 also forced us to take more serious steps at optimum energy use," he explained.

The Finnish energy sector made an important breakthrough in the area of energy efficiency at the end of the 1950s, when it started to build plants which could recycle heat used to generate electricity.

These so-called industrial back-pressure and district heating plants – based on the principle of Combined Heat and Power (CHP) – have been largely responsible for optimum energy use in Finland.

Many of the country's paper and pulp mills are equipped with back-pressure installations. Some of these not only provide heat for the mill, which is necessary in pulp production, but for the homes of the surrounding community.

Most of the installations burn waste fuels such as wood, black and sulphite liquors which derive from pulp, and to a lesser extent coal, gas, peat and oil.

The Nordel network, a five-nation Nordic organisation which promotes co-operation in producing and consuming electricity, is also another important reason why Finland, as well as the other Nordic nations, has made important strides in energy efficiency. The Nordel countries can obtain at peak hours cheaper electricity than what it would cost to produce at home.

In many ways the energy crisis of the 1970s was a blessing in disguise for Finland. High international spot oil market prices not only encouraged Finland to become more resolute on energy efficiency; they also helped push Finnish-Soviet trade to new heights. At the beginning of the 1980s, trade to the USSR jumped and accounted for roughly 25 per cent of all Finnish exports.

In the Finnish-Soviet semi-barter trade system, which switched to trade based on hard currency last January, Finland would traditionally swap manufactured goods for Soviet oil.

But dependence on the USSR during its present discontents can be a double-edged sword. The instability and basic shortages in the Soviet Union may put in jeopardy its electricity and gas sales to Finland. Of the 8.9m tonnes of oil imported by Finland last year, nearly 5.3m tonnes came from the Soviet Union. The Soviets also supplied its entire gas consumption (2.3bn cubic meters) and half its electricity.

Over the decades important steps have been taken to overcome such dependence on imports by developing alternative sources of energy.

Of Finland's 62.5 twh of electricity used last year, 10.8 twh derived from hydro power, 18.1 twh from nuclear, 16.3 twh from back pressure, 6.4 twh from condensing power, and 10.8 twh from imports.

Such efforts have paid off. With the help of conservation techniques and by diversifying energy supplies by increasing the role of coal and gas, Finland has been able to curtail the role of oil from around 50 per cent of all energy use in 1970 to 30 per cent in 1990.

The energy crisis also had a profound impact on people's homes. sector. In contrast with the trend of the 1960s, much more attention was paid to the role of insulation: walls were made thicker and windows smaller.

Mr Taisto Turunen, head of the ministry of trade and industry energy department, would be satisfied if electricity use would grow at 2.5-3 per cent a year during this decade.

The ministry is also expected to decide next year on an ambitious energy conservation programme which would almost halt the growth of electricity consumption during 2005-10. Such efforts, however, are expensive and would cost the state FM1.5bn a year.

But even if Finland has taken important steps in the direction of energy efficiency, new environmental pressures will force the country to be even more careful in its energy use. According to IVO, it will have to invest in the next few years FM1.2bn to reduce sulphur and nitrogen oxide emissions at large coal-fired installations.

Roughly a third of new capacity to be built this decade consists of a 1,000 MW nuclear plant. Mr Turunen says that environmental pressures and the need to decrease reliance on energy imports and secure cheap energy in the future for industry strongly favour building a fifth nuclear plant.

Enrique Tessieri

UK Government tries to keep the initiative

An issue which refuses to fade away

ENERGY efficiency has benefited from a surge of interest in the environment, and has found its way on to most political agendas. The UK's efforts, however, have been criticised by lobby groups and politicians as going only a small way towards making the kind of savings that are needed.

Mr John Wakeham, Britain's of State for Energy, will today meet officials from the government's Energy Efficiency Office to review progress made in energy-saving since the government launched its initiative with the publication of the white paper on the environment a year ago.

The white paper launched several schemes for promoting energy saving, in particular, a system for making grants available to low-income households for loft insulation and draught proofing.

UK energy consumption rose last year and, while GNP fell, energy usage went up by 1.8 per cent, which led to a 1.6 per cent increase in carbon dioxide emissions. The government has targeted the year 2005 as the date by which carbon dioxide emissions should be stabilised. In a stinging criticism of the government's record on conservation, the House of Lords earlier this year said the UK would have to spend £45bn over the next 10 years to reach its target of stabilising emissions.

That would involve spending around £2,000 for each home in the UK, according to Mr Colin Myerscough, director of the Energy Efficiency Office. He believes energy efficiency is not necessarily promoted by throwing a lot of money at it on the grounds that "these measures would not be cost-effective in the short-term".

With a budget of some £40m a year, Mr Myerscough is, in any case, far from reaching the House of Lords' sum. "It is better to spend more on targeted, sectoral schemes than on blanket, nationwide coverage," he said.

The Energy Efficiency Office will launch a £1m advertising campaign jointly with the Department of the Environment in November in an effort to achieve a link in the public's mind between domestic energy saving measures and caring for the environment.

"Most people do not associate their own energy use with global warming, and there is substantial scope for cost-effective savings," said Mr Neil Williams, director of the domestic side of the Energy Efficiency office's operations.

Through the Energy Efficiency Office, the government is chiefly spending its money on alerting people to the need to save energy and encouraging them to do so, rather than giving any more positive enticement.

Mr Andrew Warren, who heads the Association for the Conservation of Energy, points out that no value-added tax is charged on consumers' gas and electricity bills, but the government levies 17.5 per cent tax on energy efficient products.

"It is undeniable that there is a barrier in the difference between the treatment of energy bills and energy efficient goods," said Mr Williams, at the Energy Efficiency Office. But he says that tax decisions are left to the chancellor.

The government has earmarked £36m to spend on its home energy efficiency scheme which makes grants available for low-income households – specifically those receiving supplementary benefits. The money is provided for loft insulation, draughtproofing and basic energy advice.

It is important to target low-income households as this is often where some of the biggest improvements can be made. The National Home Energy Rating service estimates that bringing every home up one notch on its rating scale of 1-10 could cut the UK's carbon dioxide emissions by 4 per cent.

However, much of the money available under the home energy scheme has already been allocated. In addition, the government has stopped the grants available to all home-owners for putting in loft insulation since it says most homes now have it.

But environmentalists point out that most houses in the UK have minimal loft insulation and need at least another three inches.

Milton Keynes, which is at the forefront of energy efficiency, is building a new range of energy efficient homes in its Energy Park. These achieve a rating of about 9 on the NHER scale and are built to standards in place in Sweden.

Mr Warren reckons that, even with improvements to UK building regulations last year, they are only up to the standard introduced by Sweden in 1935. The Energy Efficiency office says building regulations are changing gradually.

However, the government cannot agree on a national standard for rating homes, and two competing schemes are currently in operation. The energy efficiency office says talks are under way to to make them comparable.

"We hope an energy audit will catch on," said Mr Williams.

"We could make them obligatory, as they are in Denmark when you move house, but having an audit done does not mean you actually spend money on energy efficiency improvements."

One area where the UK has made significant progress is among the heavy energy consumers such as the steel and chemicals industries. These businesses have a strong incentive to cut fuel consumption, since energy expenditure makes up a large part of their overall budget.

This month the energy efficiency office will launch an initiative to heighten awareness of energy efficiency at the most senior level in UK industry. "We want to try and get senior executives not just to think about energy efficiency in their own organisations, but also in the locality," Mr Myerscough said. The Energy Effiency Office is also soon to target smaller businesses which have not given so much attention to energy saving. Mr Myerscough says a scheme will be launched in April whereby the office will make funds available for small businesses to have reports drawn up on savings that could be made.

A report by the House of Commons select committee on energy stresses: "There is no room for any complacency about the rate of improvement in the country's energy efficiency and the likelihood of achieving the present national target."

Deborah Hargreaves

John Wakeham: monitoring the progress

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ENERGY EFFICIENCY 6

The day of the petrol-free car is coming steadily nearer, writes **John Griffiths**

Plug in, charge up and drive it away

THE proportion of oil used by road transport has grown rapidly in the developed industrialised west over the past two decades. In 1989, the most recent year for which substantive figures are available, it accounted for nearly 60 per cent of oil used by members of the Organisation for Economic Cooperation and Development (OECD).

Cars account for the largest part of this consumption. Sales of around 35m a year are swelling a world car population already approaching the half-billion mark.

OECD statistics show that the number of cars in use world-wide jumped from 193.52m in 1970 to 405.7m in 1988 and the rate of growth continues to accelerate. Over the same period, commercial vehicles in use more than doubled, from 52.8m to 121.6m.

Car ownership is expected to grow at least in tandem with economic growth with Europe, in particular, following North America down the road to two and even three vehicle-owning families. OECD estimates put the average level of car ownership at 80 cars per 1,000 population world-wide but 550 per 1,000 in the US, 330 in OECD Europe and 250 in Japan.

The implications of this ever-expanding population in terms of demand for oil, as a limited resource, are clearly momentous. This is quite apart from other major considerations such as vehicles' contribution to global warming and the need to control other exhaust emissions such as acid rain-causing oxides of nitrogen.

Arguments have already been advanced for the use of oil to be cut back in situations where substitutes can be used fairly readily – such as power stations – in order to conserve it for uses where they cannot, namely transport.

Against this strategic background, and with the occasional traumatic prod from Middle Eastern conflicts, the world's motor industry has already made substantial progress in decreasing the specific fuel consumption of both cars and trucks, helped by a growing proportion of more economical diesel vehicles and a trend towards larger trucks able to deliver more goods per vehicle mile.

As a result, motor vehicle oil consumption increased by 61 per cent in the period between 1970 and 1988, whereas total road traffic grew by 86 per cent over the same period.

It is inevitable, however, that in terms of gross oil consumption this technical progress has been largely obscured by vehicle population growth; a situation likely to continue well into the early 21st century.

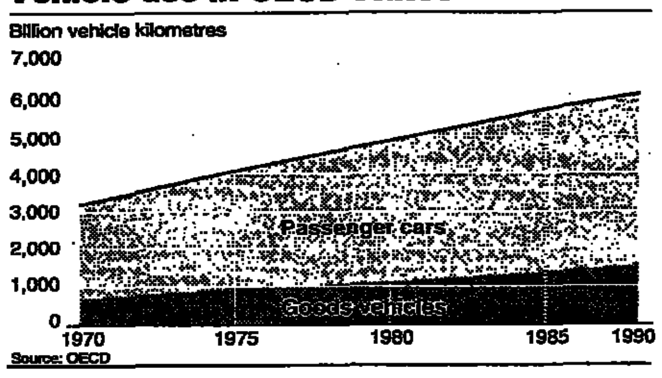
Yet from the mid-1990s in particular, rapid changes in car technology should mean that the rate of increase in oil consumption by cars will lag increasingly behind the growth in their population.

Ironically, this burst of technological change is being driven more by the leap to the fore of environmental worries than a direct concern for saving energy, or even fuel cost increases. Environmentalist pressure and consequent legislative requirements for exhaust emissions to be reduced have sent vehicle-makers world-wide on a hunt for alternative, less polluting ways of powering private transport.

By far the most draconian legislation is being introduced in California, where from 1998 two per cent of the sales of any car maker wishing to sell more than 30,000 units a year in the state will have to be "ZEVs" (zero emission vehicles). Barring the emergence in commercially viable form of some unexpected technology, such as the hydrogen fuel cell, this can only mean electric vehicles powered by batteries.

Vehicle use in OECD states

Billion vehicle kilometres



Source: OECD

The percentage of "Zevs" will have to rise to 10 per cent of manufacturers' sales by from 2003. Manufacturers which do not comply will be barred from selling any cars in the state.

Based on sales projections, this means 30,000 Zevs will be sold in 1998, rising to nearly 150,000 a year from 2003.

The vehicle industry is taking California's legislation very seriously, for the principal reason that where the state has led in the past on environmental issues, others – and eventually Japan, Europe and elsewhere – usually follow.

Already 12 US states appear set to follow its lead, including some of the most economically powerful in the US such as Texas and Illinois. Together, they account for about half the estimated 10m new cars sold each year in the US.

Against this background, General Motors, Ford and other manufacturers have sharply accelerated electric vehicle programmes. "We have to have a viable electric car ready to go," says Mr John Dabels, director of market development for GM's electric vehicles programme, which is focused on the Impact, a purpose-designed car powered by lead acid batteries and with the performance of a conventional sports car.

Impact, which has a top speed of over 100mph and a range of around 120 miles cruising at 55mph, demonstrates that there are no longer any big technical obstacles to the car going into production, insists Mr Dabels.

That even European manufacturers are taking Zevs serious was underlined at last month's Frankfurt motor show, when BMW, Opel, Audi and a joint project between a Swedish group, Clean Air Transport, and the Los Angeles Department of Water and Power, all unveiled battery cars.

Officially, BMW described its E1 as a "concept" car, but it is expected to form the basis of BMW's own Zev to comply with the California rules, as were other cars. Immediately after the show, Audi announced it was putting on general sale immediately its sodium sulphur battery-powered estate car.

Also unveiled at Frankfurt was the LA 301, the joint project car by Clean Air Transport, and the Los Angeles Department of Water and Power. It forms part of the Los Angeles "electric vehicle initiative", devised by the city council and state utilities, to put 10,000 electric cars and light commercial vehicles on southern California's roads by 1995.

Unlike GM's Impact or BMW's E1, the LA 301 is a hybrid, using a small catalysed petrol engine in conjunction with lead acid batteries to extend the travelling distance of the vehicle to 120 miles before a battery charge.

GM, in common with other manufacturers, stresses that the electric car cannot replace conventional cars and that it should be seen as for urban use by families which own another vehicle for longer distance driving.

In developing Impact, GM is seeking to ensure that it will be able to adapt to whatever battery technologies – sodium sulphur, nickel iron, nickel cadmium and others – emerges as the best successor to lead acid batteries.

Zevs are by no means the only ingredient of the Californian programme, however. Also included are the Low Emission Vehicle (Lev) and Ultra-Low Emission Vehicles (Ulev).

The latter will use a variety of alternative fuels, led by methanol because of its reduced emissions of carbon dioxide, the principal "greenhouse" gas involved in global warming.

Zevs , of course, require electricity to charge their batteries, and the manner in which this electricity is generated thus becomes a key element in the overall energy efficiency of the vehicle.

For areas where a significant input is provided by hydro resources, the Zev represents nothing but gain on both the environmental and energy fronts.

Things become more problematical where the electricity is generated predominantly from coal or oil stock. Even here, however, the Zev's advocates argue that there will still be net benefits as a result of most Zevs being recharged overnight, thus helping in electricity load-levelling..

Domestic heating and global warming

The villain in the home

ENERGY conservation in the home often means a hotchpotch of makeshift measures which, often, are taken in the interests of comfort rather than to cut back on energy consumption. If cost savings are to make the effort worthwhile, they have to be pretty substantial.

At the same time, many homeowners do not associate carbon dioxide emissions and global warming with home heating systems. When our five-bedroomed London terraced house was estimated to emit 11.4 tons of carbon dioxide each year, I was shocked into considering more draughtproofing.

The National Home Energy Rating (NHER) audits homes to judge their energy efficiency,

and the National Energy Foundation offers a rating service. The NEF says that the average UK home has is a score of four. Some 14 million homes are believed to rate lower than this, and improving their rating would be as simple a matter as installing insulation or draughtproofing.

"People often think about alternative sources of energy such as solar power," said Richard Macphail, director of Optima Energy, "but the state of energy efficiency in much of our housing stock is so shocking that just a few basic measures could make great savings in energy."

Care of the environment is a strong political and social issue, and many people have converted to unleaded petrol and aerosols free of chlorofluorocarbons (CFCs). However, studies have found that homeowners are often unaware of the effect to be gained by, for example, turning the thermostat on the central heating system down by one degree, or switching to low energy light bulbs.

In March, the Department of Environment published a study of attitudes towards energy conservation in the home*. It says most householders find energy efficiency and conservation vague concepts. Sheer inertia is a big reason no concerted action is taken.

Energy audit calculations are based on a house's size, type of heating system and amount of insulation.

In addition to the NHER audit (a more expensive option, but one which also sends a consultant around to advise on measures which can be taken), Nationwide Anglia offers a home energy report – based on the Starpoint system – for house purchasers. The building society, which has been offering the service since May, believes people know everything about the house they contemplate buying except the level of fuel bills and level of energy efficiency.

Our home received two stars out of five on the Nationwide's scheme, which puts it into the same category as 60 per cent of the UK housing stock. We have some insulation in the loft, the hot water tank is lagged and we have a fairly new gas boiler. The report suggested more draughtproofing at a cost of £210 to save 10 per cent on our fuel bills, and cut our emissions by 1.2 tons a year.

In order to gain four stars, the company recommends a range of projects at a total cost of £11,821 which should cut bills by a third and emissions by 4.1 tons. We might consider fitting thermostatic radiator valves and extra loft insulation at about £300 each, but the payback on solid wall insulation and replacement windows will take so long that it puts us off.

Our attitude towards energy saving is simu… … that of the 94 households interviewed for the Department of the Environment's report. Few expected to live in the house for good and felt that money spent on insulation would not be gained when selling the house since it is not as visual as, say, a fitted kitchen.

The Starpoint survey takes a relatively simple look at a home's efficiency. It costs £40 for a survey if it is not done as part of the Nationwide's offer. The NHER scheme, more extensive at £120, which did highlight a few points missed by the previous survey – such as the lack of insulation in half of our loft.

Mr Macphail pointed out that only newly-built houses usually receive a rating higher than 7 due to changes in building standards. "The problem with a house of your age (Edwardian) is that 35 per cent of the heat is lost through the walls, and solid walls are very difficult to insulate," he said.

He estimated increased loft insulation and draughtproofing windows would provide a payback within three years. These tasks, according to the Department of the Environment's study, are thought of as fiddly, irritating jobs. In addition, it found little awareness of how much energy their appliances use, or of new products.

* *Attitudes to Energy Conservation in the Home, Department of the Environment, HMSO Publications, PO Box 276, London SW8 5DT. 071 873 9090, £10.*

● *National Home energy Rating, Rockingham Drive, Linford wood, Milton Keynes, MK14 6EG. 0908 672787.*

● *Nationwide Anglia, Chesterfield House, Bloomsbury Way, London WC1V 6PW. 071 242 8822.*

Deborah Hargreaves

Payoff in the roof: insulating with Rockwell fibre

ENERGY EFFICIENCY 7

Welsh miners: the changes will come too late

'Greenhouse' war flares in Brussels

A clash of sceptics and environmentalists

LATE last year a controversial but distinguished British economist was telephoned by a television programme researcher. It had just been announced that he would be advising some energy companies as part of a new study into the likely *commercial implications of* global warming – the accentuation of the greenhouse effect.

The researcher was gushing. Wasn't it important to be involved in trying to solve such an appalling environmental dilemma? Was he anticipating coming up with good financial news?

The distinguished economist drew breath sharply. No he most certainly was not. He saw every likelihood that not only was global warming of dubious *scientific veracity, but seeking* to abate it was likely to disrupt vast areas of industry.

Since that time all the leading world scientists have met at the World Climate Conference in Geneva and concluded that global warming is happening. And every developed nation has committed itself to working via the UN Environment Programme to develop an international convention at the World Earth Summit in Rio de Janiero on climate change by 1992.

But if the economist is proved wrong as an amateur climatologist, what of his forecasts about the huge problems and costs for industry?

Such views are still prevalent among those energy and power producing industries most likely to be affected. They have been forming coalitions to fight the policy options currently being debated to combat global warming, the main cause of which is an excess growth in carbon dioxide emissions.

*Ninety per cent of such emis*sions from OECD counties come from the burning of fossil fuels – coal, oil and natural gas.

According to the European Commission, "energy efficiency improvements are the quickest and most effective mechanisms to reduce carbon dioxide". And reducing carbon dioxide can be big business.

There is a potential market in the 12 EC countries alone worth 430 billion Ecus over the *next decade, for investment in* measures intended to combat the Greenhouse Effect.

Last month, European Commissioners adopted a major new policy programme, graphically entitled *A Strategy To Limit Carbon Dioxide Emissions And To Improve Energy Efficiency.*

It proposed tax levies upon energy consumption, encouraging grants, loans and tougher product standards. This will have the effect of increasing *investment in energy saving* technologies, such as insulants, energy management systems and thermostats, creating thousands of jobs.

It remains to be seen whether this will come from European-based industry, from North America, or more likely, the Far East. Earlier this year the industry sought to strengthen its voice in Brussels by setting up a European Association for the Conservation of Energy in Brussels.

It represents European-based companies which manufacture, *distribute or install energy sav*ing equipment, hitherto a very fragmented industry.

The Association acknowledged that between 1974 and 1984 across the European Community energy efficiency improved by an average of 20 per cent.

This meant producing more wealth for the same – or even lesser – amounts of fuel consumed. It reduced the numbers of new power stations, gas and oil fields.

However, over the same period Japan improved by 34 per cent. The Association is now concerned that a further 20 per cent savings target – set by the EC between 1985 and 1995 – is being allowed to slip. Investment in improving energy performance has declined – in some countries dramatically.

Between 1992 and 1987 a meagre 3 per cent overall improvement was achieved. And European Commission *officials now warn there is* "little likelihood of this objective being achieved unless a series of active energy efficiency programmes are established": hence the proposed new initiatives.

A.W.

Juliet Sychrava describes the slow birth of a cleaner combustion technology

New boilers to restore King Coal

BRITISH COAL must have been heartened, amid claims that the merchant bank tasked with the company's privatisation, was planning the early closure of most of its pits, to read a report by WEFA, the coal research organisation.

"Although coal is suffering from some serious setbacks," the report said, "in the long-term it is the energy source with the greatest proven reserves, and will be required to meet the lion's share of primary fuel input for power generation."

The setbacks to which the report refers are primarily environmental.

Coal has suffered considerably from the raised environmental consciousness of the last decade.

When burned, it releases about twice as much carbon dioxide per kilowatt hour of electricity than gas, and about 20 per cent more than fuel oil. It contributes about 24 per cent of the carbon dioxide released globally from burning fossil fuels, and close to 10 per cent of the total carbon dioxide released into the world's atmosphere.

Coal stations also emit significant quantities of gases that contribute to acid rain: around 2.8m tonnes of sulphur *dioxide and 0.8m tonnes of* nitrogen oxide per year in the UK (1987 figures).

Coal, however, provides three quarters of the UK's electricity. Making it environmentally acceptable is a pressing task, not only for the industry, but for the country. And when British Gas temporarily raised its prices to power stations by 35 per cent earlier this year, the electricity industry was reminded that while gas is a relatively cheap, clean and plentiful alternative to coal at present, that can easily change.

So far, cleaning up coal in the UK consisted primarily of equipment fitted to power stations which reduces emissions of sulphur by "scrubbing" the gases as they leave the chimney. The government has committed itself to fitting this "flue gas desulphurisation" or FGD *equipment to 8000MW of power* station capacity, where it will reduce sulphur emissions by up to 90 per cent. But it does not help with nitrogen oxide, or with carbon dioxide, because it is simply bolted on the end of the station. More importantly for the operators, FGD reduces the efficiency of a station and makes it less competitive.

The last year has seen UK politicians finally sit up and take notice of the alternative "clean coal" technologies being developed elsewhere around the world.

Earlier this year, the Labour party issued a document arguing the importance of coal as an energy reserve, and criticising the government for its *failure to invest in research* into clean coal technology. In July, the Commons Energy Committee published a report arguing that clean coal technology was vital to the survival of the UK coal industry.

FGD, the report noted, decreased the efficiency of power stations. Moreover, the EC's directive controlling emissions from power stations would compel the UK to take further measures to cut nitrogen and carbon dioxide emissions.

Detailing the different clean coal technologies available, the report said that none would be brought to commercial application fast enough in the UK unless the government spent more on R&D.

"In the past, the UK government has made only very small direct contributions towards clean coal R&D," the report *pointed out. "Our main conclu*sion at this stage is that a prerequisite for a satisfactory UK clean coal policy will be significant government assistance."

Politicians in Britain in the last year have become aware of the state of technology in other countries

The government's response came in the form of a report by its own "task force" set up to investigate coal technology. The report, put together by *energy industry representa*tives, will form the basis for the government's first explicit *policy document on clean coal* technology.

It recommends a £400m-£800m programme, over a 10 year period, split into two phases. By the end of the programme, clean coal technologies should be close to commercial application, the report says.

The most important part of the programme would be research into advanced power generation - at a cost of £250-£600m. It is here that the key to future clean coal technology really lies.

Advanced power generation, as defined by the programme, covers the three main types of established clean coal technology, as well as some alternatives. All three burn coal in a way which significantly reduces sulphur and nitrogen emissions, and because they are more efficient than conven*tional coal combustion, they* also release less carbon dioxide per unit of electricity.

The best established of the three is probably gasification, where oxygen blown through the coal turns it into gas, removing 99 per cent of the sulphur and giving nitrogen levels similar to that produced by the combustion of natural gas. The other two leading processes are circulating fluidised bed combustion (CFBC), and pressurised fluidised bed combustion (PFBC). Both work by burning coal at low temperatures, which make it easy to remove sulphur, and mean that 25 per cent less nitrogen oxide is formed. Both these technologies, and gasification, can give efficiencies of between 40 and 45 per cent, compared with 30-35 per cent in conventional plant.

In the US, and in some European countries, a number of power stations using the new technology are already operating. More are being planned.

Commercial standard coal gasification plants exist in the US – Texaco has a 100MW plant in California, and Dow a 160MW plant in Louisiana, both of which sell electricity to the local grid. Smaller plants using PFBC technology have been built in the US, in Sweden, and in Spain. Shell is building a 250MW coal gasification plant in the Netherlands.

In the UK, however, clean coal technology is still some way from commercial application – although ICI recently announced it had commissioned a new £8m coal-boiler, based on a Swedish plant, *which will capture sulphur* dioxide. Similar to FGD, the technology can be bolted on to existing plant, reducing sulphur emissions by 50 per cent.

Five other clean coal research projects worth a total of nearly £20m were announced by the department of energy this month, including a collaborative project between British Coal and the department costing around £200,000 per annum. But this is still a long way from the commercialisation of power station technology British Coal would like to see.

The company has a test plant in Yorkshire, which uses a combination of clean coal technologies known as the "topping cycle" developed by *British Coal. However, it is* running short of funds to continue its work.

Whether or not it gets more money to make coal cleaner and more competitive will largely depend on the final version of the government's task force report, due to be published later this year.

ENERGY EFFICIENCY 8

Deborah Hargreaves on the role of consultants

Successes that tell their own story

THE installation of a gas turbine to generate electricity and steam at United Biscuit's Manchester plant should save the company around £300,000 a year in energy costs. Similarly, the introduction of computerised energy management at Hoover's Merthyr Tydfil operation in Wales will save 60 per cent of the plant's fuel bill – some £350,000 a year.

Energy contract managers have seen a gradual pick-up in business over the past 18 months as the recession has started to bite.

"Energy costs make up a small percentage of a company's overheads, and energy savings skills are usually given a low priority," said Mr George Gol, managing director at Inenco energy consultants. "But when things are tough, a company is looking for every little saving that can be made."

Inenco is in the process of commissioning the combined heat and power scheme at United Biscuits – at a cost of some £1m – which it will operate for 11 years. The steam from the CHP plant will be used in part of the biscuit and chocolate-making process. In addition, Inenco has improved the efficiency with which the plant uses gas, and introduced low energy lighting. It expects these measures to pay back initial investment after three years.

"When you look closely at some of these companies, the amount of energy that is wasted is phenomenal," said Mr Gol. "Many of the boilers we see date back to before the second world war. A lot of companies will rather spend money on maintenance than invest in new equipment."

A fifth of the UK's annual energy bill – a "staggering" £8bn – could be saved by the adoption of energy efficiency measures, estimates Mr John Wakeham, secretary of state for energy. Writing in a new guide to energy management published by the Institute of Directors and British Gas*, Mr Wakeham says:

"If the vital importance of responsible energy management is to be understood and acted upon in this country, direction has to come from the very top. Savings made by energy efficiency measures go straight to the bottom line profits and towards increasing competitiveness."

But Lord Ezra, chairman of Associated Heat Services, calls on the government to do more to promote energy efficiency in industry:

"If we want to get anywhere on stabilising our carbon dioxide emissions by the year 2005, there needs to be some intervention," he said. "We need increased depreciation allowances for all energy efficiency measures as well as the removal of VAT on energy efficiency products."

Associated Heat Services is a company which has gathered expertise on all aspects of energy management in a bid to build the first integrated contract energy group. AHS says it has seen a 10 per cent pick-up in its business this year as companies, in mid-recession, look for every saving they can make.

Energy contract managers such as AHS will invest in and run more efficient heating and lighting schemes for major companies, splitting the cost savings made to pay back their investment and fee.

Emstar, the energy contract management arm of Shell UK, the oil company, has installed computer controls at Hoover's washing machine and dishwasher plant in Wales. This means that heaters can be switched on or off in 75 zones throughout the plant, depending on occupancy and temperature.

The company shut down the central coal and heavy fuel-fired boilerhouse, which was using 2.7m therms of energy a year at a cost of £387,000. By installing gas-fired radiant tube space heaters and operating them in line with the plant's shift system as well as other measures, the company was able to cut energy consumption by 1.6m therms a year – roughly a 60 per cent saving.

Ms Ann Coney, chairman of the National Energy Efficiency Association, believes that heightened awareness of environmental problems and companies' desires to institute "green" policies, have led many to give serious consideration to conservation.

Energy management courses are available to degree level, and Ms Coney says there are indications the recession has forced companies to emphasise these skills.

One area where massive energy savings can be made is in local government. Many local authorities are contracting out their energy management in an effort to cut costs.

For two years Inenco has been running heating systems for Blackburn city council, which has invested £350,000 to replace an old steam heating system for heating local authority buildings such as law courts, libraries and swimming pools and government offices. The scheme will pay for itself in another year.

It is not only large-scale developments that can benefit from the introduction of more energy-efficiency measures. Mr Ralph Cohen, managing director of AHS, says small-scale combined heat and power units can be just as effective. "The units are particularly suitable for any premises with a reasonably continuous heat demand." He says hotels, for example, can use exhaust heat for their swimming pools.

AHS has had an energy contract with the Pond Hotel, a 137-room hotel in Glasgow, for the past six years, and has installed a gas-fired CHP unit. The unit provides supplementary heating and hot water throughout the hotel via its waste heat cycle. The scheme has already cut energy consumption by a quarter.

"Often you need to make straightforward, common sense solutions," said Mr Gol at Inenco, "but often the local authority or company lacks a commitment to conservation or has no expertise in this area. On top of this, they are reluctant to spend money on it."

**Director's Guide to Energy Management, published by the Institute of Directors and British Gas, Mountbarrow House, Elizabeth Street, London SW1 9RB 071 823 6557, £9.95*

Solar heaters in the roof of a Milton Keynes house: the sunshine is free

Deborah Hargreaves visits the Milton Keynes Energy Park

Showcase in suburbia

MILTON KEYNES' current advertising campaign in London extols the virtues of living in the new town – lack of congestion, green open spaces, and higher quality of life. They could also say: "Come to Milton Keynes and cut your energy bills by a third."

Since its inception in the early 1970s, Milton Keynes has pioneered the concept of energy efficient housing. It is now extending its standards to include industrial and commercial developments.

"As the largest urban development in the country, we had a unique opportunity to set aside a substantial part of the city where we could emphasise energy efficiency," said Mr John Walker, deputy general manager of the Milton Keynes Development Corporation.

The Corporation set aside a 300-acre site near the city centre, called it the Energy Park and devoted it to energy-efficient housing and industrial development.

The area now supports 600 homes, and a further 600 are under construction.

"We realised energy efficiency is something a lot of people just don't understand," said Mr Walker. "When you buy a car, you ask how many miles it does to the gallon. But when you purchase a house, most people don't even think to ask about fuel bills or energy efficiency."

Most of the energy saving measures in the Park are hidden inside the buildings; others are features of their exterior design

The Energy Park is aimed at raising consumers' awareness of energy efficiency. All the homes, which range from one-bedroomed flats to five-bedroomed executive houses, are built to standards of efficiency far more rigorous than current building regulations.

The Energy Park houses are designed to achieve a rating of 8 out of 10 on the National Home Energy Rating scale. The second phase of the project will raise this to 9 or more, bringing the latest homes up to leading Scandinavian standards.

Most of the energy efficiency measures in the Park's existing houses are hidden features such as loft, wall and floor insulation. If these are specified from the start, they are fairly cheap to install.

Other features include double glazing, with most of the windows facing south, low energy lighting, and more efficient heating systems. Most of the houses also have conservatories which trap a lot of solar heat.

These measures reduce occupants' fuel bills by at least a third and often as much as half. Since the builders install high efficiency heating systems, they can make boilers and radiators much smaller and therefore cheaper to run.

Phase two houses will have facilities to recover heat from ventilation, solar-assisted ventilation and mains pressure domestic hot water systems.

Milton Keynes has now extended its high standards on energy efficiency to the whole of the city's housing stock, which means that any new development must conform. Around 2,000 houses are built in the city each year, and some developers are more keen on energy efficiency than others.

"Some of them see that it can be a selling point," explains Mr Walker, "and awareness among the public is growing, but very slowly."

The Development Corporation does not specify how a house should be built, it sets a performance measure which the builder and architect can decide how to incorporate into design.

In highly efficient homes, the heat lost through ventilation becomes a significant proportion of overall losses. The way to reduce this is to recover air from an exhaust air stream using a sophisticated heat pump system or air-to-air heat exchanger.

"We need to heighten public awareness of the amount of energy that is escaping through the roof and the walls and what the public can do about it," said Mr Walker.

Milton Keynes has been approached by other local authorities throughout the country with a view to using its experience as a model. In order to assist in energy efficiency schemes, the city has set up the National Energy Foundation which also runs the National Home Energy Rating.

Local authorities are eager not to make the mistakes of 10 years ago when they provided council houses with insulation, said Mr Ian Burn at the NEF. Then, they failed to take into account the total energy picture of the property, which meant that installing insulation could make condensation a problem for the householder.

Now the NHER scheme provides computerised assessment of the total housing stock, and target areas for action. In addition, the government has launched the "green" house scheme for local authorities. The best energy efficiency scheme wins £50m in supplementary borrowing powers to improve energy efficiency.

Milton Keynes remains at the forefront. "It is extremely important that we are seen to be doing this," stresses Mr Walker. "We are demonstrating that it can be done in a way that adds to rather than detracts from the quality of the housing.

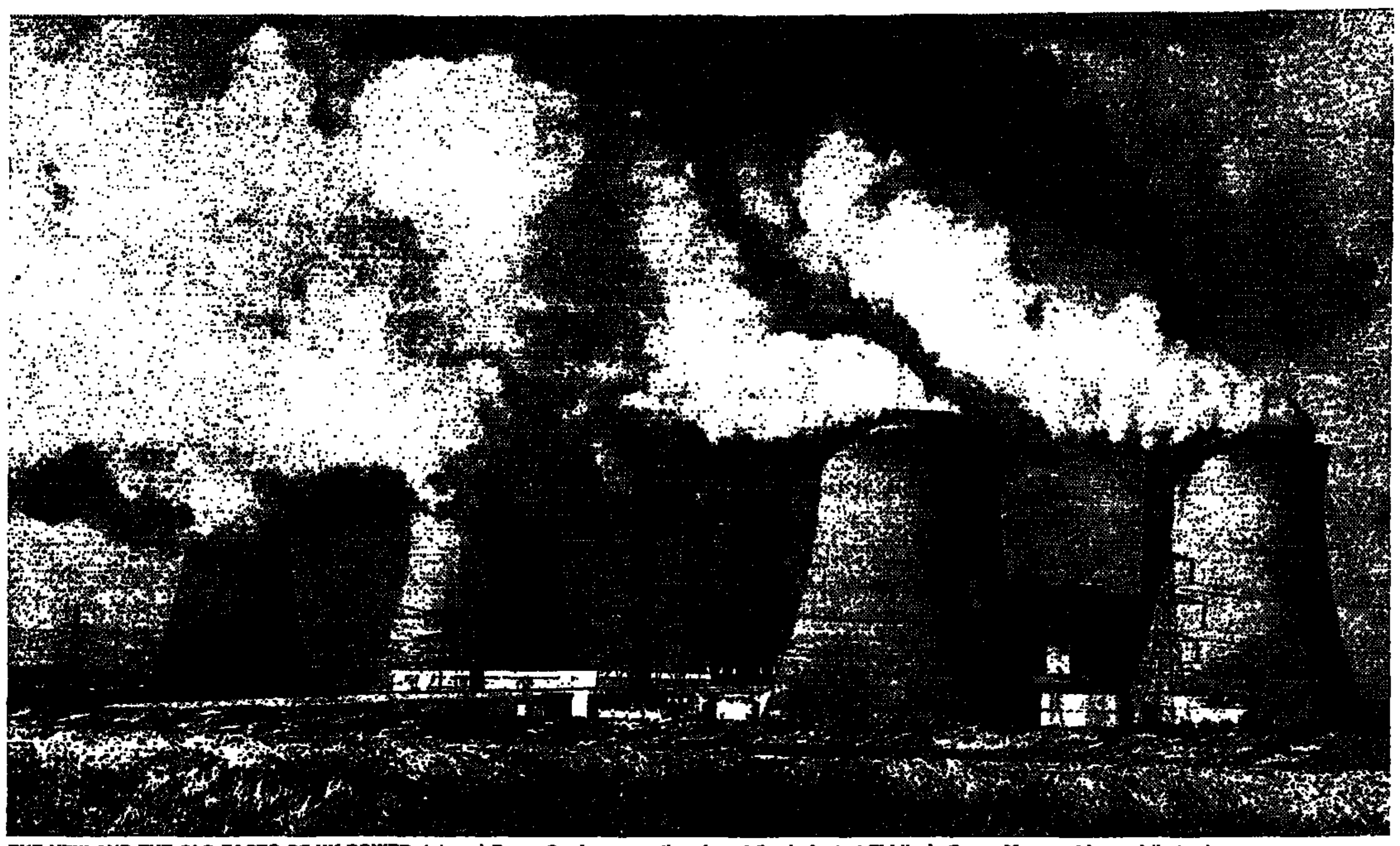
"More importantly, a tremendous proportion of the energy we use is still used in houses, and if we cut this by a third or more, we can make significant energy savings and a contribution to preventing global warming."

The National Energy Foundation, which grew out of Milton Keynes' leading position on energy efficiency, will start construction next year on the National Energy Centre in the Energy Park.

"This is intended to be a showpiece for people to find out about their energy use and how to save it, as well as offering a resource for the technical and trade side of the business," said Mr Burn.

Juliet Sychrava examines electricity's dilemmas

Privatised power seeks to sell more, rather than less



THE NEW AND THE OLD FACES OF UK POWER: (above) PowerGen's conventional coal-fired giant at Fiddler's Ferry, Merseyside; and (below) the small but cleaner and much more efficient natural gas burner being constructed by Lakeland Power at Roosecote, on Morecambe Bay

WHEN the regional electricity companies were privatised a year ago, Friends of the Earth accused the government of locking the companies into a "sell more or die" formula.

"Improving energy efficiency and reducing electricity demand will be directly against the commercial interests of the RECs after privatisation," the environmental group said.

The government, said Friends of the Earth, had discarded the option of linking the new companies' profits to investment in energy efficiency, as overseas governments had done. Instead, under the new regulatory system, the companies' profits would be purely driven by increased sales.

A year later, as the Departments of Energy and Environment, backed by the regional companies, prepare to launch a £1m autumn campaign to promote energy efficiency in the home, energy efficiency is still enough of a problem for critics to feel that £1m spent on advising people on insulation will be money wasted.

More money will follow the £1m, and the government's ministerial group on energy efficiency is due to review the whole subject at a meeting to-day. But the government's approach to promoting energy efficiency, which focuses on giving out advice, dissatisfies the energy efficiency lobby. And several regional companies admit that there is still an unresolved conflict between their own commercial interests and promoting energy efficiency.

This point was raised in March by the Commons energy committee's critical report on energy efficiency. "At the very least, any aspects of the tariff systems which bias utilities against energy efficiency measures should be rectified," the report said.

Ofgas, the gas industry's regulatory watchdog, has already gone some way to remedying the problem. It recently announced that the formula which sets the price for gas to consumers would include a new "E" or energy efficiency factor, which would cover the cost of investments in energy efficiency. But few industry observers believe Offer, the electricity industry's watchdog, will follow suit.

Although the regional companies were obliged to promote energy efficiency under the new system, the energy committe report said, it was not clear why they should have an incentive to do so. "There is certainly no sign yet of radical new initiatives," the energy committee said, and noted that it would be watching Offer, which is obliged to ensure the companies promote efficiency.

So far, most of the regional companies have reconciled the conflict between selling units and promoting efficiency by arguing that electricity was often more energy efficient than competing fuels. Winning a larger market share was one way of selling more while improving efficiency.

Power companies try to reconcile the conflict by arguing that electricity is often more efficient than the alternative fuels

This approach is endorsed by the Energy Efficiency Office, (EEO) which believes informing customers is the key to promoting energy efficiency. So far, it has rejected the option, put forward by the energy efficiency lobby, of changing the regulatory formula to allow the regional companies to cover the costs of investing in energy efficiency for their customers through the electricity price.

"It would discourage consumers from making their own investments," the office says.

"Where electricity companies can do more is in providing more information." This need not mean they end up selling less, the office says, "because if consumers save on their energy bill they will have more money to spend on other appliances."

The EEO denies that this means just as much electricity would be consumed. "It's about getting more use out of the same number of units." Using more electricity because it is more efficient could mean using less of other fuels, the EEO says.

This is the approach most regional companies now take, at least in public – although Offer's fears that it would only apply where electricity was in competition with gas seem to be very real.

Norweb, for instance, sells a service to refurbish or build energy efficient buildings – but the scheme does not include lighting solutions "because there is no competition from gas," the company says.

The EEO adds that there is nothing to stop the regional companies from least cost planning by investing, say, in an insulation company, rather than selling more units.

But very few regional electricity companies seem to have taken on board the lobbyists' understanding of energy efficiency as least cost planning.

As the energy committee report explains, this means not just selling consumers services rather than units, but looking at alternatives to selling more electricity – such as helping customers invest in insulation.

East Midlands is a notable exception. The company has not only set up a new company, Lincoln Green Energy, which offers a totally integrated solution to the design, management, installation and maintenance of energy efficient systems" but it has launched a pilot project in a village called Great Gonerby, near Grantham.

The village's electricity demand had grown too high for the local electricity grid, but instead of investing in reinforcing the grid, East Midlands decided to attack demand by insulating and draughtproofing the village, and supplying it with low energy bulbs.

Manweb has also introduced an element of demand side management in a block of local authority flats. Instead of supplying the flats with cheap electricity during peak nighttime hours, as usual, the company offers a cheap period during the afternoon, when its demand is lower. A red light in the flats indicates the cheap time, allowing residents to charge up storage heaters or use other electrical appliances. By spreading the cheap period over the day as well as night, the company avoids the need to reinforce its network to meet the nighttime demand.

These are, however, rare examples of demand side management. Most regional companies do what they have always done – to sell electrical solutions that compete with alternative fuels – often very effectively.

"Energy efficiency is the platform of all our marketing," says Mr Ron Cockayne, of Norweb. "The latest technologies usually involve electricity but cut down on other fuels, labour and raw materials, and make industry more cost-effective and competitive."

The company has 38 account managers who visit industries to advise on electrical processes and techniques that have, in some cases, resulted in energy savings of close to 50 per cent. However, these processes may well be attractive because they save money, raw materials or labour, but not energy.

A number of regional electricity companies have a similar approach, with a salesforce, and a technical centre which clients can visit.

Most regional companies, has been doing this for 20 years. And many regional companies would agree that privatisation has not changed their attitude to selling electricity. "I've got to say we've always promoted energy efficiency," says Mr Jim Ellis, commercial director at Seeboard, although he notes that the company has set up a free telephone advice service.

New energy efficiency initiatives have, of course, been introduced. Eastern Electricity has introduced free surveys which assess the energy efficiency of houses. Southern Electric offers a scheme where one can pay for low energy lightbulbs on one's fuel bill, thus setting the high capital costs of the bulb against its low energy consumption.

But the old-fashioned flavour of the industry is illustrated by the fact that its key energy efficiency policy documents, the Codes of Practice, read like household hints from wartime magazines – draw your curtains at night, use the toaster rather than the grill, boil no more water than you need for a cup of tea.

Though practical, such tips are unlikely to convince the environmental lobby that the regional companies are working towards significant energy savings.

Even the staples of most regional companies' energy efficiency programmes - such as low energy light bulbs - have not been adopted with much verve or enthusiasm. In many areas, the bulbs are still hard to find.

Even regional electricity companies that stock the bulbs – which cost about £10 – are far from enthusiastic about them. Their high cost deters customers, and they come in a limited range of designs.

Why Europe's energy chiefs are converging on Copenhagen

Planning the American way

COPENHAGEN will be the scene next week of one of Europe's biggest ever gatherings of senior energy utility executives. On the agenda is a concept which, if adopted, could radically alter their traditional role as energy suppliers and add a new dimension to the way they plan their businesses.

Known variously as least cost planning or demand side management, it involves the "evaluation and selection, by the utility industry, of the optimal mix of resources to meet society's energy service needs at the lowest overall cost to society".

That is the description provided by America's National Association of Regulatory Utility Commissioners (NARUC), which has been most active in developing these philosophies. Many of its leading representatives will be in Copenhagen.

Of the 50 US states of North America more than 40 now practise some form of least cost planning. This means that all "resources" are required to be evaluated by utilities on an equivalent basis. So conservation programmes which save energy can replace power stations or distribution plants.

Although now commonplace in North America, the concept is virtually unexplored in Europe. Hence the decision by the European Commission and the International Energy Agency to host the Copenhagen Conference.

In their invitation, Mrs Helga Steeg, IEA Executive Director, and Mr Constantin Maniatopoulos, Director General for energy at the EC, state: "New supply means enormous capital investments, environmental risks and addressing public concerns over the siting of new facilities. Programmes designed to reduce energy demand and the comparison of investments in these programmes to supply alternatives, may offer lower cost options."

The new thinking on least cost planning turns the arch polluters into the foremost influential agents of services which combat pollution

In essence, least cost planning requires utilities to cease considering themselves as purveyors of commodities, selling therms of gas or units of electricity as though they were tins of baked beans.

After all, there is no consumer who wishes to purchase these *per se*. What they seek is energy services – heat, light or motive power. Utilities thus become the providers of society's energy service needs.

The key new word in this concept is surely "society".

Resource evaluations of this kind initially were measured on conventional economic costs. Regulators required standard comparisons between the expense of, say, replacing lightfittings with low energy compact fluorescent bulbs, as opposed to capital expenditure on new generating plant or substations.

Now, however, US regulators increasingly require that such issues as environmental impact, fuel diversity, risk and other societal impacts should be factored into the costings.

The broad principles for implementing least cost planning programmes are as follows:

1. Periodic preparation and review of resource plans.

2. Evaluation of all options on a consistent basis.

3. Access for and competition among all resource suppliers. (This includes conventional generating facilities, renewable resources, utility conservation programmes, cogeneration purchases, and purchases from independent power producers or energy service companies.)

4. Financial incentives for a utility to implement energy conservation. The anticipated loss of revenue flows needs to be compensated.

5. Accounting for environmental impact.

In any country, society at large has a strong incentive to adopt least cost planning. In some European countries, however, the industry and regulatory structure may initially affect implementation of least cost planning, although that alone should not be seen as a barrier.

Obviously, where there is vertical integration of electricity utility ownership – as in Scotland, as well as Belgium, France, Greece, Ireland, Italy and Portugal – there is the greater incentive to implement demand side management schemes.

Recognising that barrier, Mr. Maniatopoulos at the European Commission recently funded two trial least-cost planning assessment studies in ostensibly less promising territory, in Schleswig-Holstein, Germany, and with Ibiduero in Spain.

Encouraged by the results, the Commission called for tenders this summer from all European utilities, offering to underwrite part of the costs for least cost planning studies.

Budgetting for some 15 studies, the Commission received applications for nearly three times as many.

Consequently later this year a trial least-cost planning exercise will be taking place in every member state. The front runners in Britain are likely to be Manweb and Scottish Power.

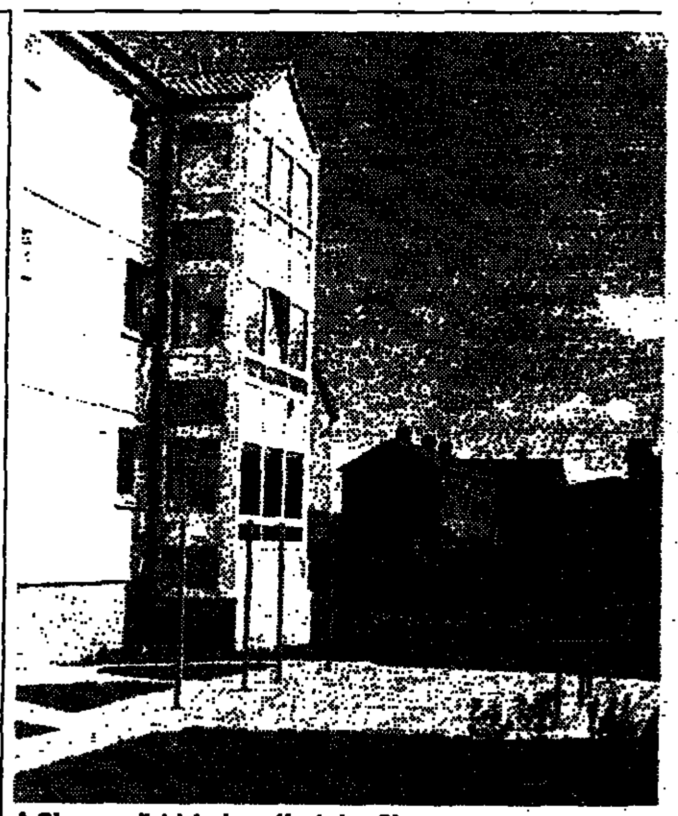
There is no doubting the Commission's commitment to seeing least cost-planning flourish. Next year it will publish a major policy paper on it following the decision to promote energy and carbon taxes to combat atmospheric pollution.

Evidence of heat loss, as in this Southampton house surveyed by Pilkington Energy Advisors, can be provided by coloured thermal images produced by infra-red cameras

Last year, the Community set itself the target of stabilising carbon dioxide emissions from energy by the year 2000. Existing European programmes, such as SAVE, THERMIE, JOULE or PACE, are unlikely to be sufficient. That is why the Commission strategy paper published this month laid so much emphasis on the potential for least-cost planning to deliver the necessary savings.

Traditionally, the utilities have been simple purveyors of commodities which cause pollution. The new thinking makes them the most influential agents in developing the services which will combat pollution. There should be some interesting discussions in Copenhagen.

Andrew Warren



A Glasgow district where Heatwise Glasgow, an energy training initiative, has completed an insulation programme

UK SAVING EQUIPMENT

Demand stays in a deep decline

THE Government's much-heralded White Paper on the Environment, *This Common Inheritance* was unequivocal. Energy efficiency, it agreed, is "the cheapest and quickest way of combatting the threat of global warming", writes ANDREW WARREN.

This gives little comfort, however, to the UK energy efficiency industry currently suffering its worst ever trading year since the "Save It" campaign was launched following the 1973 Yom Kippur war.

Nowhere is the decline more obvious than in the sectors which provide energy saving for buildings, where some 46 per cent of UK fuel is consumed. Here the remedies are:

- better insulation in roof, walls and floor;
- tightly fitted multiple-glazed windows;
- efficient boilers;
- heating systems with modern controls;
- individual thermostats to control heat in each room;
- efficient appliances for lighting, refrigeration and washing.

All these products have long been on the market. But their penetration of buildings in Britain lags far behind that of other countries.

Over the last two years the minimum standards for energy saving in new homes throughout the UK were upgraded by changes in the Building Regulations. But they have still only reached the levels in force in Southern Sweden in the 1930s.

But with far fewer new homes or offices currently under construction, the impact of even these new regulations changes has been minimal. A new requirement was introduced for floor insulation but because of the depressed state of the market manufacturers have felt little change in overall business.

The overall position of the market place has altered drastically. Since 1988, double glazing sales have fallen 34 per cent, with heating controls and boilers and radiators down by 20 and 25 per cent respectively. Cavity wall insulation sales have fallen by almost 50 per cent since 1987.

None of these sectors has enjoyed a single quarter's upturn for several years.

As a result, some household names have been forced to quit the market – Stormseal, and Alpine Doubleglazing – and even the giant Pilkington has admitted difficulties caused by the fall in the insulation market. Last month Pilkington Insulation announced further reductions in its workforce, closing whole product lines.

Many leading contractors, installers of either insulating or heating equipment, have disappeared from the scene, either by diversifying, or more usually by going into liquidation.

The sector is suffering its worst trading since the 1973 Middle East war and oil shortage triggered the UK's Save It campaign

Last month, Downs Insulation, one of the largest domestic installers of cavity wall insulation, went into receivership after nearly 20 years in the field.

In the heating controls market, two substantial mergers between competitors have taken place: Danfoss with Randall Controls, Potterton with Myson. Such rationalisation may mean there were too many players in the market-place after the boom years of 1986-7, when the Government ran a successful Energy Efficiency Year campaign.

Many specialist electronic companies also decided at that time to diversify outside their niche markets, especially after the 1987 election when the Government appeared to lose all interest in conservation.

The writer is director of the Association for the Conservation of Energy

British Gas under scrutiny

Growling watchdog on the prowl

THE belief *that natural gas is* more environmentally benign than other forms of energy is having a profound influence on the shape of the UK energy industry. Thanks to the prompting of Ofgas, the industry regulator, and the relative receptivity of British Gas, *efforts to improve the* efficiency of gas use are making ground.

Ofgas has a public duty to promote efficiency within the industry. But it lacks specific powers to do so, and has no specific duty to protect the environment. In practice, it *has been helped in its role* by the willingness of British Gas to encourage efficiency among its customers.

Perhaps the most important example of this relationship was provided by the recent review of the British Gas tariff formula (governing domestic gas prices), prior to which Ofgas commissioned an independent report on the feasibility of least cost planning.

This is a planning technique developed in the US and widely advocated by environmental groups. Ofgas found that the concept is applicable in the UK gas industry, but doubted whether least cost programmes would represent genuine cost savings for British Gas. Nevertheless, it introduced a novel element in the tariff formula under which energy efficiency costs could be included in the cost base.

British Gas has long used its own stock of buildings and industrial complexes to conduct studies of efficiency, forming the basis of recommendations to its customers.

For example, the company succeeded in reducing its own energy bill by 10 per cent one year, saving £700,000. It then passed on what it had learned for wider application in industry. Since 1975, British Gas has run a School of Fuel Management to provide practical training in fuel efficiency.

Energy efficiency has remained an issue despite the *lack of tangible support lent* by the government. Many participants were dismayed when the electricity privatisation failed to include a commitment to efficiency. But one can identify gradual improvements across the energy industry.

With the exception of 1990, recent years have seen efficiency improvements of up to 3 per cent of all energy use. According to County NatWest Woodmac, end-users of energy will continue to make efficiency savings, but the improvement is likely to occur at only around 1 per cent per annum as the scope for additional efficiencies declines over time.

Within the primary energy market, demand for gas is expected to grow faster than for any other fuel. In the mid-1990s, UK gas demand could be increasing at 10 per cent per annum, while total gas demand is forecast to rise from 18.6bn therms in 1990 to 26.8bn therms by 2000, a jump of 45 per cent.

This huge increase is influenced mainly by the onset of demand from new electric power stations equipped with *combined cycle gas turbines* (CCGTs), which generate cheap extra power from the heat of their primary gas burners.

There are three main reasons for the interest in such plants at this time. First, despite the best efforts of British Gas to limit short-term demand by raising prices, gas delivered onshore to the UK is cheap enough to make such generation economical.

Second, gas enjoys government support on the grounds that it is less environmentally harmful than other fuels. It was included in the government's White Paper on the environment as the fuel that will help reduce the emissions of carbon dioxide from power stations.

On an energy-equivalent basis, gas produces only half as much carbon dioxide as coal and one-third less than petroleum. Legislation designed to reduce sulphur emissions from power stations means generators face the costly installation of flue-gas desulphurisation equipment.

Third, the new CCGT stations can achieve fuel efficiencies of up to 50 per cent, compared with the 34 per cent achieved by conventional coal-fired stations. CCGT stations are not only more efficient at converting fuel into to electricity, but are cheaper to build. They also incur lower operating costs than coal-fired stations.

The bulk of UK domestic gas use is accounted for by boilers. Since gas was first introduced, there have been considerable gains in efficiency.

Older boilers work at only around 55 per cent efficiency; a modern conventional boiler can achieve more than 70 per cent; while the latest generation of condensing boilers operate at efficiencies in the high 80s.

Payback on condensing boilers can be as short as two years.

In 1989, Ofgas published a booklet on condensing boilers; with help from British Gas, *more than 100,000 copies have* been distributed.

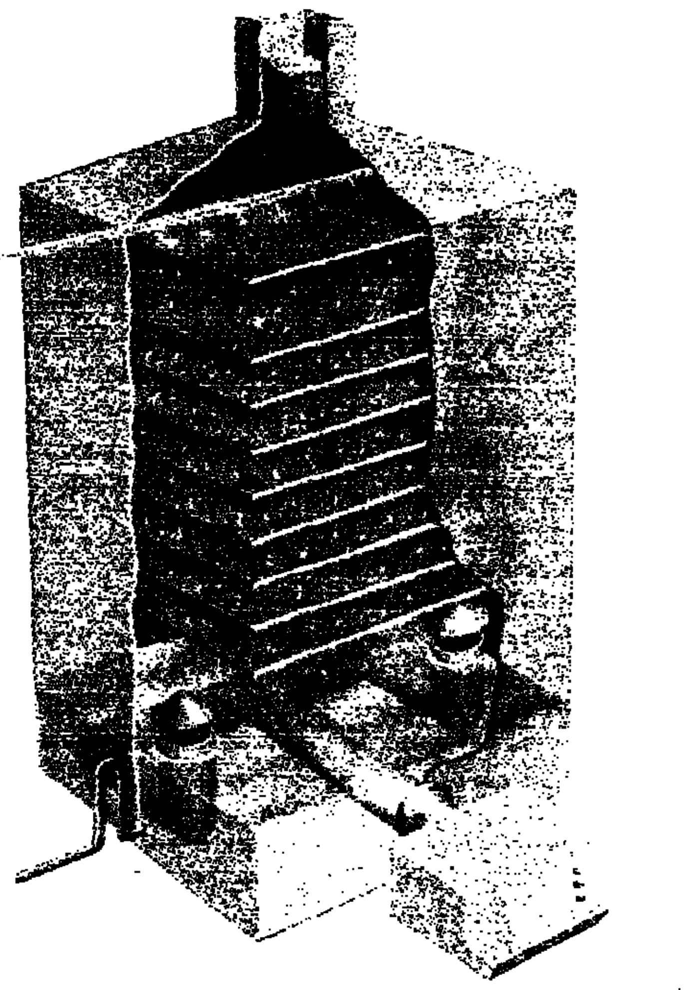
British Gas believes the condensing boiler will make a significant contribution to domestic energy efficiency, alongside such developments as thermal storage and improved control systems.

Increasingly, packages such as the Superwarm and Homewarm central heating systems are being designed and marketed with efficiency as a key selling ingredient. British Gas is well advanced on a programme to ensure that by next year it will have a qualified adviser in every gas showroom giving information and help to customers wanting efficient products.

Machines such as gas-fired tumble driers are considerably cheaper to use than their electrical equivalents. They have long been in widespread commercial use but have only gradually been adapted for the domestic market. British Gas also thinks that there is more to encouraging efficiency than simply educating householders. Local authorities, architects, developers and builders can all play their part. The trend towards self-building houses has included the importing of extremely efficient kits from Scandinavia and other countries, raising general awareness of the benefits of efficiency.

Ofgas has stated that British Gas's record on efficiency is at least as good as that of any other energy industry in the country. But the regulator has also remarked that it does not necessarily follow that the company does everything it could do. Ofgas has kept the objective of ensuring British gas remain under pressure. In January this year, the two agreed a Code of Practice on energy efficiency services.

Andrew Freeman



Direct contact water heater: part of the new generation of gas boilers

Juliet Sychrava explains the virtues of CHP

Heat + power = efficiency

THE UK consumes around 60m therms of energy every year - and wastes around 25m therms in the process of generating and distributing electricity.

Power stations usually operate at around 34 per cent efficiency – 66 per cent of energy escapes during combustion. One way of capturing some of that waste heat, identified by the government in its White Paper on the environment, and recently by the Labour Party in a special document published this month, is co-generation, or Combined Heat and Power (CHP).

CHP generators, unlike ordinary generators, recapture the waste heat released during combustion, and use it to raise steam, hot water, heating, or more electricity. They can thus produce heat and electricity at once.

Their charm, apart from the fact that they are energy efficient, is that they come in all sizes – from a power station size, to the boiler in a hospital or hotel.

The Labour party has made a commitment to promote CHP, which, it points out, releases less carbon dioxide and gases causing acid rain per unit of useful power produced than conventional generation plant.

Accusing the government of failing to promote CHP, the Labour party document points out that three Labour councils have backed CHP schemes. One, which provides Sheffield homes with heating and hot water, was developed by the Finnish company Ekono Oy and Sheffield City Council.

The most recent scheme, which expects to win support under the government's Non Fossil Fuel Obligation (NFFO) subsidy scheme for renewable energy projects next year is in Lewisham, in south London. Devised by a joint-venture company, SELCHP (South East London Combined Heat and Power) which is led by Associated Energy Projects, a subsidiary of the French group Compagnie Genérale des Eaux, will burn more than 400,000 tonnes of rubbish a year, generating around 30MW of electricity.

However, the UK is still well behind Europe when it comes to district CHP schemes. A number of countries, notably the Netherlands, Sweden, Finland and Denmark, have made serious commitments to promoting CHP. In Finland, 63 per cent of district heating is supplied by CHP, and in the Netherlands, a budget to support district heating schemes is included in the government's £48m CHP support package.

Small-scale CHP is the fastest growing sector of the UK market – particularly since privatisation. "It went dead for 6-8 months around privatisation," says Mr Roy Carter, of SPP Applied Energy Systems (AES), which manufactures and markets small and medium scale units. "But it began to pick up when there was an expectation that electricity prices would rise. The higher the electricity price, the more interest in CHP."

The UK's overall commitment still lags behind Europe and dissatisfies the energy lobby and the environmentalists

Small scale units, which typically provide between 32kw and 5MW of electricity, are popular for hotels, leisure centres, swimming pools, hospitals, and other facilities with a fairly constant demand for heating and hot water.

The UK market has traditionally been led by a few established companies, such as Combined Power Systems (CPS), which offers technically advanced, self-monitoring units, and SPP AES.

Since electricity privatisation, the regional electricity companies have also staked their claim to this market. Midlands Electricity set up a company called Cogen systems at the end of last year, and Norweb formed a joint-venture with CPS to market CPS units. Last month, Norweb was joined by London Electricity and Northern Electric as all three formed new joint-ventures with CPS to market small-scale CHP throughout the UK. The three regional companies now hold 44 per cent of the equity of CPS.

For the regional companies, providing CHP is a way of keeping customers they would otherwise lose from their distribution network, since CHP is on-site and independent of the local grid.

The new companies will sell a range of CPS packages, which include different financing terms. Because CHP is so much more efficient than conventional generation, the main attraction is that the companies can install and maintain the units and still sell the customer the electricity at a discount to the local electricity company's tariff. The customer need not outlay any capital, and can opt to buy the unit.

There are many other medium-sized projects being undertaken by energy companies such as British Gas, National Power, and PowerGen. National Power, for instance, announced plans for a new mini CHP station at Lancaster University last month.

When it comes to large-scale *CHP, or CHP power stations*, a number of power station projects are underway, notably the 1,725MW Teeside station being built by ICI, Enron, and a group of regional electricity companies. Others have been announced more recently, such as the Texaco-led consortium planning a station in Pembroke, South Wales.

But the fact that large customers get sizeable discounts from regional electricity companies makes it somewhat harder for large-scale CHP to compete directly in the industrial market.

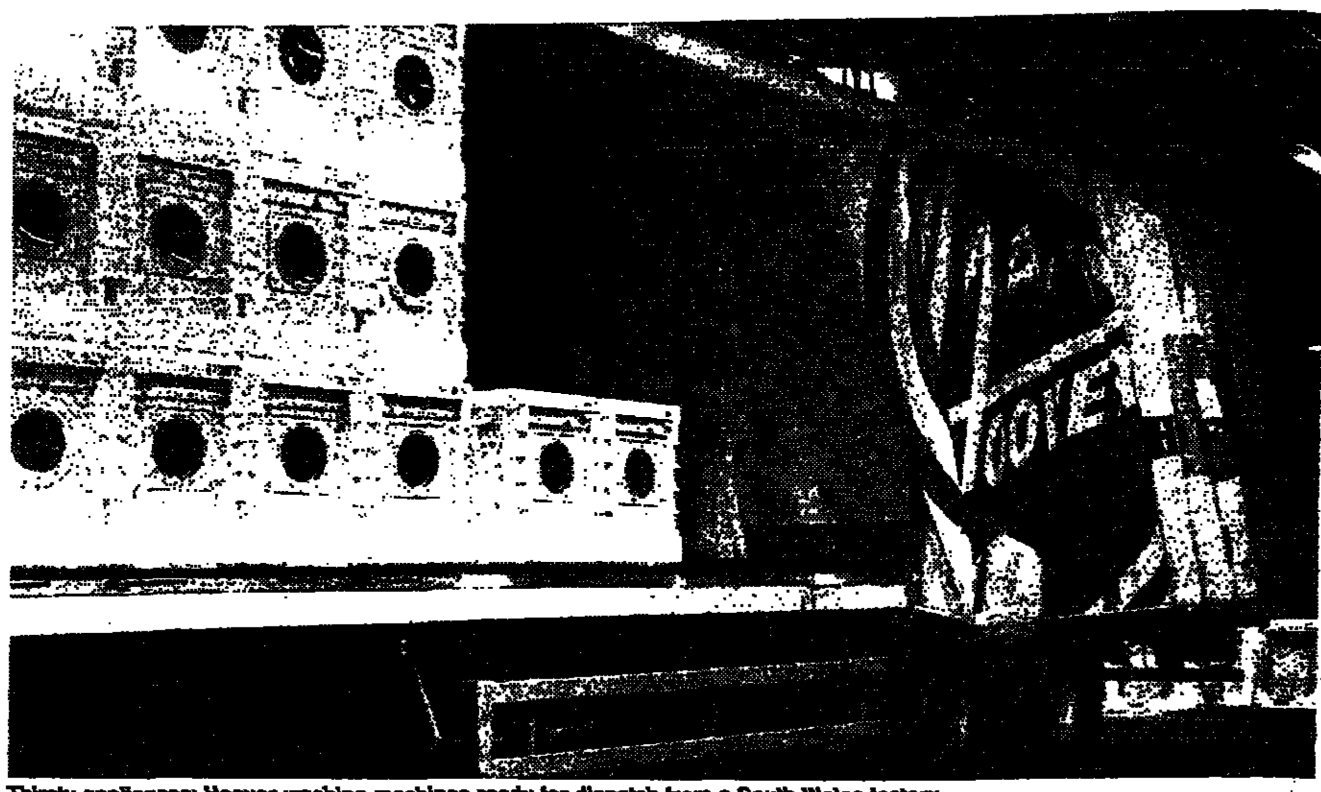
The UK's overall commitment to CHP still lags Europe, and dissatisfies the environmental and energy efficiency lobbies.

The government has committed itself to achieving 4,000MW of CHP generated power by the year 2000, around double today's capacity.

Industry analysts believe there is room for far more in the UK, if the government were prepared to support it with schemes like the proposed German scheme to introduce a carbon tax, which would give CHP an advantage.

Energy labels will soon be obligatory, writes **John Hunt**

Signals from Brussels



Thirsty appliances: Hoover washing machines ready for dispatch from a South Wales factory

LARGESCALE energy saving can be achieved by the use of more efficient domestic appliances such as refrigerators, washing machines, dishwashers and ovens.

A recent study by the March consulting group for the Department of Energy showed that domestic appliances account for 21 per cent of the electricity consumed in the UK.

This has a big environmental impact – equivalent annually to emissions of 11m tonnes of carbon dioxide, the main greenhouse gas which contributes towards global warming.

The survey estimates that energy saving of 40 per cent could be achieved in Britain if the existing stock of domestic appliance were replaced by the most efficient models available in the country.

If the latest research developments were incorporated in new models the savings could be as high as 60 per cent. This would mean a saving of £1.5bn a year to UK electricity consumers.

With figures such as these it is not surprising that the European Community is pressing ahead with a mandatory energy labelling scheme. This will give customers the energy efficiency rating of an appliance and allow them to compare it with competing models.

Meanwhile, several countries are introducing their own schemes. In the UK the Energy Efficiency Office of the Department of Energy is holding consultations on a voluntary scheme which it hopes to introduce in advance of the EC directive.

It is hoped the big electricity companies will co-operate in their retail outlets and that other retailers will follow suit. Initially it will apply only to refrigerators and freezers. The Government sees this as a "useful interim measure" until the EC directive comes into force.

The US and Germany have schemes and the Netherlands and Denmark are working on them.

The British organisation, the Association for the Conservation of Energy (Ace), says that energy labelling will have little effect on its own unless manufacturers also introduce tougher efficiency standards and targets.

In Germany, at the urging of the Government, the domestic appliance industry agreed a voluntary programme for efficiency targets for white goods combined with energy labelling. Targets for improvement ranged from 3-5 per cent for electric cookers, 7-10 per cent for washing machines, 10-15 per cent for dishwashers and 15-20 per cent for refrigerators and freezers. All the targets were exceeded by a big margin.

When mandatory labelling was introduced in New South Wales, Australia, there was an average improvement of 15 per cent in the efficiency of refrigerators on sale in the state and models with poor energy ratings nearly disappeared from the shops .

Within the year products with a five star energy rating could be sold in NSW at a significantly higher price than products with a lower star rating indicating that they were less efficient.

In the EC, years of discussion on a framework directive for energy labelling are only now reaching fruition. In 1986 the Council of Ministers set objectives for energy improvement of 20 per cent by 1995.

It was soon apparent, however, that these targets were unlikely to be attained unless more stringent measures were taken. In fact, domestic electricity demand in the Community rose by 35 per cent between 1982 and 1989.

The Commission says it will require the most robust energy efficiency policy to curb power consumption in order to meet the Community target of stabilising emissions of carbon dioxide by the year 2,000.

Initially, EC labelling will cover refrigerators, freezers, washing machines, driers, dishwashers, ovens, water heating and lighting appliances. There is provision for other appliances to be added to the list.

"Surveys have shown that energy consumption of domestic appliances varies widely and that there is no particular relationship between energy efficiency and price or performance," says the Commission.

"As a result, most purchasers show no preference for energy efficient appliances and the market fails to encourage the manufacture of them."

The EC scheme would also provide a fiche with more complete information which a customer could take away to study at leisure and compare with rival products. This might include the environmental consequences of using the appliance.

The aim is a scheme which will be in place to prevent differing national labels creating barriers to trade after the completion of the internal market next year.

In the UK, the Association of Manufacturers of Domestic Electrical Appliances (Amadea) and its west European counterparts have opposed the Commission's proposals.

The association states: "The industry has always believed that market forces provide a more effective and quicker mechanism for reducing energy consumption than energy labelling directives. Indeed, the improved energy efficiency of appliances proves this belief."

But now Amdea and most similar associations in the EC countries are prepared to support labelling provided it is based on the standard style of product information which the industry has drawn up. In addition to energy consumption this would include noise levels and other key features.

The Association for the Conservation of Energy takes issue with the manufacturers. "Over reliance on the power of the market mechanism alone to encourage environmentally responsible purchasing fails to recognise that the average consumer simply does not know that such benefits are available," it says.

"Lack of knowledge and incentive on the part of sales personnel are compounded by the obscurity and technicality of the product information provided by manufacturers."

Ace says that the most energy efficient refrigerator currently available uses a third of the power of the least efficient model and is not significantly more expensive.

HEAVY INDUSTRY

Survival of the lean and fit

THE steel industry and other sectors of heavy industry in Britain have all reduced their energy use in recent years because of plant closures.

But the surviving plants are using energy more efficiently.

Over the past 20 years the chemical industry, for example, has halved the amount of energy it uses to produce a unit of output.

The latest figures of the Chemical Industries Association (CIA) show that although the industry's output rose from a 1985 base of 100 to 119.2 in 1989, energy consumption rose over the same period to just 105.8. The result was a fall in the energy/unit output measure to 88.8.

The CIA's Keith Wey accepts that closure of some large and inefficient plants in the 1980s helped to boost efficiency, but claims the main spur was rising energy prices.

"Now the pressure is on also for the environmental benefits."

Companies are being forced to install more efficient technology to cope with environmental controls. Energy efficiency for its own sake, however, is still a major concern to all the energy intensive sectors.

Britain's chemicals companies use nearly a fifth of the country's electricity and substantial amounts of gas and oil. Their energy bill is £1.25bn a year.

Some chemical processes are particularly energy intensive. Electricity accounts for 70 per cent of the cost of producing oxygen, 60 per cent for chlorine, and 30 per cent for PVC plastic, (of which the raw material is oil-derived).

Small efficiency improvements can therefore mean big cost savings. The UK's Energy Intensive Users' Group says that such successes are vital to the international competitiveness of the companies it represents in the cement, ceramics, steel, non-ferrous metals, glass, man-made fibres, paper and board and chemicals sectors.

Recent efficiency improvements have depended less on expensive new technology than on good management. "The key to the reduction of energy consumption in industry is good housekeeping and attention to detail," said a study by the Watt Committee on Energy whose members are professional institutions.

Many industrial companies have also invested in combined heat and power (CHP) plants which use the heat otherwise wasted in electricity generation and typically double overall efficiency to 80 per cent.

CHP is a good option for industries that use large amounts of process steam. A recent large installation is that at Tunnel Refineries' Greenwich site in south east London, which produces glucose syrups and brewing sugars for the food and drinks industry, from maize and starch.

The site is one of the region's most intensive electricity users, and there was concern about the future security of supplies.

In 1986 a plan for a gas-fired CHP plant to replace bought in electricity and six boilers foundered because of the high gas price. When prices improved Tunnel took the unusual step of handing over the financing, engineering, installation and the first 10 years' operation of the plant to the energy management company Emstar.

The plant produces 14.2MW of electricity from two gas turbines, and from a steam turbine plant powered by exhaust heat from the gas turbines. The steam from the three turbines is used on the site.

Emstar's managing director, John Ashcroft, says the expected £2.5 million a year energy savings, or half the annual bill, has yet to materialise because of low electricity prices. Yet he expects prices to rise: "This should re-establish, or even better the originally predicted savings."

The intensive energy sectors are also increasingly recycling as a lower energy alternative to processing new material. Each recycled tonne of glass, for example, saves 1.2 tonnes of raw materials – sand, soda ash and limestone – and about 150 litres of fuel oil.

In the packaging sector 17 per cent of all glass is already recycled, compared with about 1 per cent of plastic bottles and cartons, according to the Friends of the Earth pressure group.

The British Glass Federation says that last year in the UK a record 370,000 tonnes of glass were recycled, mainly through more than 5,000 bottle banks. The European Commission says that 20m tonnes were recycled in member states between 1980 and 1987.

The glass companies have also increased their energy efficiency and reduced costs by building bigger and better machines. The European Commission says that in 1976 a typical glass-forming machine was producing 70,000 bottles a day. Today's output is 300,000.

The steel industry also heavily relies on scrap, which is said to account about two thirds of the metal in a motor car.

But obtaining the valuable scrap material is not that simple. Recycling aluminium uses only 5 per cent of the energy needed to produce new material, but British Alcan says it may have to import most of the scrap aluminium drink cans for a £28m recycling plant it expects to open next month at Warrington, because of the lack of reclaimed cans in the UK. Only a tenth of the 50,000 tonnes of aluminium cans used in the UK each year are recycled.

There is also plenty of scope in the energy intensive sectors for re-equipping.

One of the UK's leading scrap melters, J McIntyre Non-Ferrous of Nottingham, invested £2.5m in two new types of gas fired furnace that slashed £2m from the company's annual energy bills.

It developed the two new furnaces to replace seven ageing units and is saving an effective 700,000 therms of fuel a year.

J McIntyre can also better handle scrap aluminium contaminated with iron, paint and plastic, while meeting increasingly stringent laws on emissions to the atmosphere. One furnace, for scrap with iron, uses a hot gas recirculation system to burn off coatings before gas burners are switched on to melt the aluminium.

Although more such energy saving ideas can be expected, their take up by energy intensive sectors depends heavily on energy prices.

Vic Wyman